ORGANIZE!

WARRANTY

Copyright

ORGANIZE! is copyrighted © (p) 1986 by Micro-Systems Software, Inc. The **ORGANIZE!** Users Manual is also copyrighted © (p) 1986 by Micro-Systems Software, Inc. All rights are reserved. You may not make any copies of the documentation, electronic or otherwise, without the express written permission of the publisher.

Warranty

Micro-Systems Software warrants that this program will perform as documented in this manual, and warrants that the media will be free from defects. This warranty is limited, and Micro-Systems Software specifically disclaims any implied warranties of merchantability or fitness for a particular purpose. Micro-Systems Software's warranty is limited to repair or replacement of the defective media. Micro-Systems Software shall not be liable for any damages, whether consequential or incidental, that arises from the use or misuse of this product. In NO event shall the total amount of Micro-Systems Software's liability exceed the purchase price of the product. No returns accepted after 30 days. All returns may be subject to a re-stocking fee.

Backups and duplicates

Micro-Systems Software grants to the purchaser of this product the right to make duplicates for PERSONAL BACKUP ONLY. The purchaser does not have the right to distribute these duplicates, regardless of whether or not a fee is charged for such distribution. This program is not copy-protected, and may be installed on a hard disk at will. However, installation on multiple CPUs is specifically prohibited. Reasonable corporate site licenses are available.

Technical Support

If you have questions about, or problems with, **ORGANIZE!**, you can write or call:

Micro-Systems Tech Support
4301-18 Oak Circle
Boca Raton, FL 33431

(305) 391-5077

Technicians are available to answer your questions from 9 a.m. until 5 p.m. Monday through Friday, Eastern Standard Time. Less pressing matters can be referred to the BBS.

Bulletin Board Support

Micro-systems Software maintains a bulletin board online 24 hours a day, 7 days a week. You may call here to ask questions during non-business hours. The bulletin board supports 300, 1200, or 2400 bits per second and any parity/word length setting. The number is:

(305) 737-1590

CompuServe support

Visit us on the CompuServe SIG we SYSOP; the TeleComm Group. Type GO TELECOMM from any prompt and leave a message to SYSOP in section 4 (MSS support). Our PPN is 76703,447, if you want to use EasyPlex.

TABLE OF CONTENTS

PREFACE

INTRODUCTION

Overview of Organize! 1
What Is a "Database?" 1
Terms Used 3

CHAPTER 1: MAKING A WORKING COPY OF YOUR MASTER DISK

Duplicating with One Drive 7
Duplicating with Two Drives 9
Starting the Organize! Program 11

CHAPTER 2: CREATING A DATABASE

Overview 13
Archive Requester 15
Creating Your Database 18
Adding a Field 21
Insert a Field 23
Submitting the Database 26

CHAPTER 3: ENTERING DATA

Overview 27
Adding Records 28
Keyboard Commands 29
Indexing Data 32

CHAPTER 4: RETRIEVING DATA

Overview 37
Form Mode Update 38
Keyboard Commands 38
Scanning Records 40

Deleting Records 42
Recalling Records 42
Packing a Database 43
Customizing Forms 44
Moving Fields 47
Deleting Fields 49
Changing Fields 51
Adding Text Fields 53
Adding Entry Areas 55
Adding Formulas 57
Mathematical Operators 59
Logical Operators 60
@Functions 61
@ABS 62
@ACOS 62
@ASIN 62
@ATAN 62
@ATAN2 63
@AVG 63
@CHOOSE 64
@COS 64
@COUNT 64
@DATE 65
@DAY 65
@ERR 65
@EXP 65
@FALSE 65
@FV 65
@IF 66
@INT 67
@ISERR 67
@LN 67
@LOG 67
@MAX 67
@MIN 68
@MOD 68
@MONTH 69

@PI 69
@PMT 69
@PV 70
@RAND 70
@ROUND 70
@SIN 70
@SQRT 71
@STD 71
@SUM 71
@TAN 71
@TODAY 72
@TRUE 72
@VAR 72
@YEAR 72
Form Archive 73

CHAPTER 5: SEARCHING FOR DATA

Overview 75
Search Filters 76
Search Filter Operators 78
Sample Search Criteria 79
Browse 80

CHAPTER 6: REPORT GENERATION

Overview 83
Report Output to.. Menu 83
Report Forms Menu 84
Report Print Menu 84
Report Sort Menu 85
Report Filter Menu 86
Example Reports 86
Sorted Report 88
Sorted Report with Search Filter 89
Report to Screen 89
MailMerge Format Disk File 91
Sample Mailing List Printout 92

CHAPTER 7: ADVANCED DATABASE MENU INFORMATION

Advanced Database Menu Functions 95
Project Menu 97
What Projects Save 97
Project Screen Colors 97
Status Menu 99
Organize! Utilities 99
dBASE File Compatibility 101
Miscellaneous Information 101
Loading Organize! from CLI 101
Organize! Disk Management 102
Copying an Organize! Database 102
Deleting an Organize! Database 103
Conclusion 103

REFERENCE SECTION

Menu Options 105
Project Menu 105
Database Menu 105
Index Menu 107
Form Menu 108
Search Menu 112
Report Menu 113
Status Menu 115
Technical Specifications 116
Organize! .dbf File Format 117
Organize! Internal Buffer Specs 120
Addendum 123

KEYBOARD COMMANDS

INDEX

Introduction

Thank you for purchasing **ORGANIZE!**, a sophisticated and easy to use database manager. This manual will take you step by step through **ORGANIZE!**'s many features, letting you "learn by doing". We feel this approach will quickly familiarize you with the software and allow you to create your own database that much faster.

ORGANIZE! requires an Amiga computer with 512k memory and one floppy disk drive.

A database is a collection of related information that can be retrieved in a number of ways, allowing you comprehensive and informative listings of the data stored on disk. This data can be anything from addresses for Christmas cards to recipes - plus much more.

For example, you can have names printed alphabetically by last name, first name or in ZIP code order. Recipes can be called up by name, food category or the time it takes to prepare.

In order to effectively use a database, you must be familiar with how they work. The greatest difficulty besides deciding what type of information you're going to store, is how you will store it.

A database is made up of fields and records. Think of a database as a box filled with 3 X 5 cards, each containing the name and address of a friend or relative. A field would then be a single item on that 3 X 5 card like their first-name, lastname, age, birthday, etc. A record would then be a single 3 X 5 card.

To display information in a particular order, you would sort on a field, otherwise known as Indexing. **ORGANIZE!** allows indexing in ascending (a,b,c...7,8,9) or descending (z,y,x...2,1,0) order. Indexing would be required if you wanted a mailing list printed in ZIP code order or alphabetically by last name.

ORGANIZE! allows reports to be sent to the screen, printer or a disk file. The program also supports as many reports as disk space will allow. Customized data entry screens (called Forms) permit the fields of a database to be arranged in such a way that the output is easily read and can be presented in a professional manner. Conditions can be entered as part of a report to allow a listing of all names that begin with "J" but not "Jones".

Another powerful feature of **ORGANIZE!**'s are "Project" icons. Using Projects, you can have **ORGANIZE!** automatically open a database, load a particular Form and open a specific index for you - just by selecting the correct Project icon. All Search and Report criteria are stored along with each Project, allowing quick and easy access to **ORGANIZE!**, bypassing many time-consuming and repetitive tasks.

As part of this manual, you will prepare a sample database. Please follow the examples given. Even if you do not have a need for the type of database shown, you will be able to learn quite a bit about how **ORGANIZE!** works when you create your own.

Terms Used

In this manual you may be prompted to press the <ESC> or the <RETURN> key, among others. These keys are plainly marked on your keyboard; the <ESC> key is in the upper left-hand side of the keyboard and the <RETURN> or <Enter> key is located by the four arrow keys on the right side of the keyboard.

If instructed to press an <ALT>-N, you would hold down the <ALT> key and press the letter "N" at the same time. The same holds true if told to press a <CTRL>-X or Right Amiga C. Both keys should be pressed simultaneously. Remember that the Right and Left Amiga keys are different from each other, whereas either of the <ALT> keys can be used if told to press an <ALT>-key combination. Any menu item with the stylized "A" (Amiga) letter combination is always accessed with the Right Amiga key.

Your left mouse button will sometimes be referred to as the "Select button" and the right mouse button as the "Menu button".

You will often be instructed to enter information into a requester. A requester is an item that appears on the screen looking for information before performing a function. A requester can be as simple as a small box with an input prompt or as complex as our Archive requesters.

Gadgets are items on a requester that perform functions related to the requester. They are also used to tell a requester to accept the information you've entered or to cancel a requester. Gadgets are often surrounded by small boxes and can be activated by pressing the left mouse when the mouse pointer is positioned directly over the gadget. When using KickStart 1.2, most gadgets can be selected by pressing the first letter of the gadget from the keyboard.

Icons are "pictures" of disks or programs. To activate an icon, press on it twice with the left mouse button while the mouse pointer is on the icon. Your Amiga User's Manual refers to this as "double-clicking on an icon".

ORGANIZE!'s menus are accessed by pressing down the right mouse button and moving the mouse pointer to the title bar at the top of the window. The menu titles will appear on the title bar. When the mouse pointer is on a menu title, the rest of the menu will appear below it. This is known as a pull-down menu. Selecting a menu item would be accomplished by holding down the right mouse "menu" button, highlighting a particular function, and then releasing the mouse button.

Multiple menu functions can be performed by pressing the left mouse button on the function while still holding down the right mouse button. The menu functions will be performed in the order they were originally selected. This allows you to have a series of functions performed one right after the other without having to go back to the title bar to select the next item.

Scroll bars are gadgets that allow the user to easily view a larger display than will fit on a normal screen. If you don't understand this fully, the examples we will give should clear up any confusion.

If we refer to a program as being "loaded" or "booted", we mean that a copy of the program has been placed in memory from the floppy disk - the same as saying the program is running. You would boot up your Amiga by turning it on or holding down the <CTRL> key and both Amiga keys simultaneously.

Now that you have an idea of what **ORGANIZE!** does, we can move on to more important things. The next step will be to make a working copy of your **ORGANIZE!** master disk.

CHAPTER 1
MAKING A WORKING COPY OF YOUR MASTER DISK

Making a Working Copy of your Master Disk

The **ORGANIZE!** you have now comes on a copy of Workbench 1.1. This means that you can use this disk to boot up your Amiga when it asks for the Workbench diskette. It is recommended that you do this for ease of operation.

ORGANIZE! will work with KickStart and Workbench 1.1 or 1.2.

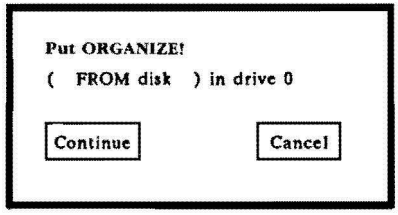
The following explains the procedure for making a duplicate copy of the **ORGANIZE!** diskette using Workbench. If you want to do this from CLI, use the DiskCopy utility program described in the AmigaDOS User's Manual.

ORGANIZE! is not copy-protected. At Micro-Systems Software, Inc., we feel that quality software at a reasonable price is the best way to encourage people to purchase the program instead of "sharing" it. Giving away commercial software is stealing and may force us to raise our prices.

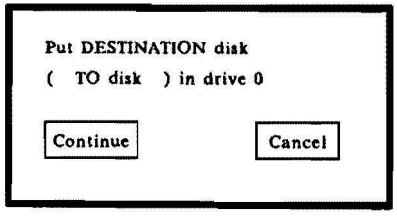
Duplicating ORGANIZE! with one drive

Boot up the **ORGANIZE!** diskette and wait until the Workbench screen appears. Select the icon of the **ORGANIZE!** disk by pointing at it with the mouse and pressing the left mouse button once. The disk icon's shutter will move from the right to the left.

Press and hold the right mouse button. A menu will appear along the top of the screen. While continuing to hold the right mouse button, point at the first word in the menu, "Workbench". A pull-down menu will appear. Move the mouse pointer down until the word "Duplicate" is highlighted and release the right mouse button. A message should appear:



Since your **ORGANIZE!** disk is already in drive 0, select "Continue" by pressing the left mouse button inside that gadget. DiskCopy will begin reading tracks and when memory is full, the next message appears:



Wait until the red light on the disk drive goes out and replace the **ORGANIZE!** diskette with the disk you want to use for your duplicate copy (it can be blank or previously formatted, it doesn't matter). Select "Continue" and DiskCopy will write the tracks it just read.

This procedure will continue, switching from one disk to the other, until the **ORGANIZE!** disk is duplicated. File the master away in a safe place and re-boot the Amiga using the duplicate copy.

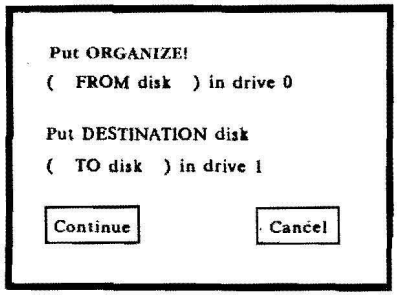
The new diskette will be named "copy of **ORGANIZE!**" or "**ORGANIZE!**", depending on the version of KickStart and WorkBench that you are using. If you want to change this, just select the disk's icon as you did before and display the Workbench menu again. Instead of selecting Duplicate, select Rename. A prompt will appear that will let you edit the name of the disk to something shorter.

You may even want to make two or three duplicate copies in this manner, to safeguard against losing all of your diskettes containing **ORGANIZE!**. NEVER use your master disk for anything other than to make working copies!

Duplicating ORGANIZE! with two drives

Boot up the **ORGANIZE!** diskette and wait until the Workbench screen appears. Load the disk you wish to use for your duplicate copy into drive 1. It doesn't matter whether this disk is already formatted or not.

Point at the icon of the **ORGANIZE!** disk with the mouse, press and hold the left mouse button. The disk icon's shutter will move from the right to the left. Move the mouse pointer until it is over the icon for the disk you will use for the duplicate copy. If it is a brand new disk the volume name "DF1:BAD" will appear. If previously formatted, you will see the disk's normal volume name. Release the mouse pointer, and after a few seconds, a message appears:



Since your **ORGANIZE!** disk is already in drive 0 and your destination disk is already in drive 1, select "Continue". DiskCopy will begin reading and writing tracks. When it is done, your copy will be complete. File your master diskette away in a safe place and re-boot your Amiga using the duplicate.

The new diskette will be named "copy of **ORGANIZE!**" or "**ORGANIZE!**", depending on the version of KickStart and WorkBench. If you want to change this, just select the disk's icon as you did before and display the Workbench menu again. Select Rename and a prompt will appear that will let you edit the name of the disk to something shorter.

You may even want to make two or three duplicate copies in this manner, to safeguard against losing all of your diskettes containing **ORGANIZE!**. NEVER use your master disk for anything other than to make working copies!

Starting the program

If you are running **ORGANIZE!** from Workbench, all you need to do in order to get the program running is press the left mouse button twice in succession while you are pointing to the **ORGANIZE!** icon. **ORGANIZE!** does support project icons. When a database is created, a drawer (sub-directory) will appear in your Workbench menu.

Selecting a drawer by pressing twice with the left mouse button will cause another window from Workbench to appear, along with any Project icons. Press the left mouse button twice with the mouse pointer on the project icon to load the specific environment for that database. Should you decide to run **ORGANIZE!** from CLI, instead of Workbench, the procedure is equally simple. Type the name of the program, "**ORGANIZE!**". and press <RETURN>. You can optionally enter a drive/path name to load a specific project, such as "DF1:NAMES.DB/PROJECT".

When **ORGANIZE!** is loaded into memory, you will be presented with a blank screen showing a title bar at the top and a status indicator along the bottom.

Press the left mouse button twice on the **ORGANIZE!** icon at this time. We will now create our database.

CHAPTER 2
CREATING A DATABASE

The Main Screen

ORGANIZE! should be up and running. A title bar will appear at the top, listing the program name and the version number. To the right of the screen you will see a scroll bar and at the bottom, a Record gadget with left and right arrows. This box should be empty at this time, since no database has been opened. In the upper right hand corner of the title bar you will see two screen depth arrangers. Normally, you can use the left mouse button to select the left screen depth arranger to view another screen. **ORGANIZE!** also supports the same function via the Left Amiga N and M keys. A Left Amiga N will display the WorkBench screen to the front, and the Left Amiga M will put the Workbench to the back. Once switched to the other screen, select the left mouse button in order to access it.

Hold down the right mouse button. **ORGANIZE!**'s pull-down menu titles will be displayed. Project, Database, Index, Form, Search, Report and Status will appear on the title bar. All but Project, Database and Status System will be ghosted. A ghosted menu item, function or gadget means that it cannot be accessed.

While holding down the right mouse button, move the mouse pointer to the Database menu. The menu will pull down to display several options consisting of: Archive, Close, Create, Change, Copy and Quit. Archive, Create and Quit are your only options at this time; the others will be ghosted.

As you move the mouse pointer down the menu items, a pop-out menu will appear next to Copy. Non-ghosted menu options will be highlighted when the mouse pointer passes over them. To select a particular menu item, release the right mouse button on the highlighted option.

For practice, you can pull down each of the other menu items to gain some familiarity with how they operate. Only the Status System menu item can be selected, as the Project Archive requester will not display anything at this time. When you have gone down each of the other menus and pop-out menus, move to the Status menu. System and Database will appear. Since Database is ghosted, only System may be chosen. Move the mouse pointer down to System and release the right mouse button when the word is highlighted.

The title "System Information" will appear within a requester. The amount of free memory, disk space available and the date and time will appear. Press the left mouse button on the "OK" gadget to remove the requester. Kick-Start and Workbench 1.2 users can press any key to toggle the requester off.

There are several enhancements available under the 1.2 operating system. They include, but are not limited to:

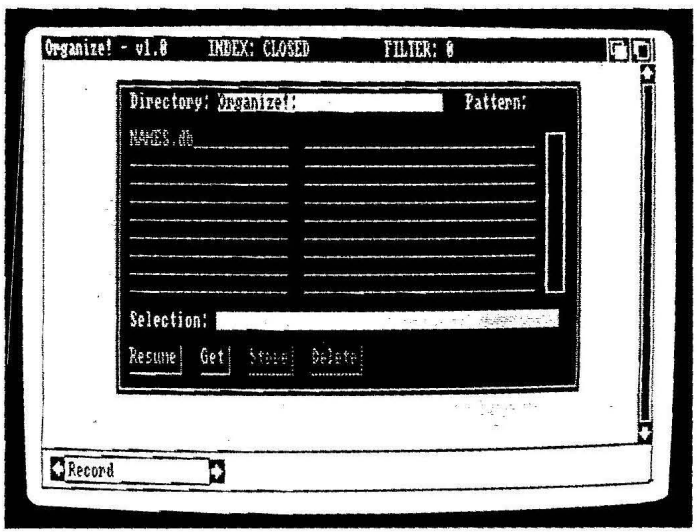
Input prompts within a requester do not have to be selected the left mouse button to enter information. You will automatically be able to enter information from the keyboard. All requesters accept first letter commands to select individual gadgets. If a requester is looking for an "OK" or "CANCEL", the letters, "O" or "C" can be pressed on the keyboard to do the same thing. In addition, "Y"es or "N"o are also acceptable responses from the keyboard in some instances. Pressing any key when a requester is just looking for an "OK" will cancel the requester.

When using requesters with **ORGANIZE!**, be aware of several Amiga keys that enhance the use of requester prompts. The most important are:

Function	**Keyboard**
Clear Requester Line	Right Amiga X
Move To Begin. Line	Shift Left-Arrow
Abort Requester Entry	Right Amiga Q

Consult your Amiga User's Guide for more information concerning requester prompts.

Go to the Database menu and select Archive. The following screen will be displayed:



When you select Project Archive, Database Archive, Index Archive or Forms Archive, this requester will appear. The only difference is that each requester will display only those files pertaining to that menu item. In other words, only Forms will appear in the Forms Archive.

ORGANIZE! automatically adds a ".xxx" extension to the filename. "xxx" is a three letter filename extension added to the files **ORGANIZE!** stores to segregate the listings, depending on the file type - ".env" for Project, ".db" for Database, ".ndx" for Index and ".frm" for Forms. A sample database name displayed in the Database Archive requester would appear as "TEST.db".

Do not use periods as part of filenames when storing files. **ORGANIZE!** will automatically add the proper file extension when it encounters a period or the end of the filename. Any portion of the filename entered after a period will be ignored and the proper extension added.

ORGANIZE! will start displaying the filenames in the order that they're found on the disk. When all are read, the directory is automatically sorted in alphabetical order.

While the directory displays within a requester, you will see the scroll bar on the right side of the requester move in proportion to it's position in the listing. Even while the directory is being read, you can use the scroll bar to move up and down through the directory. As you move the scroll bar, the directory listing will adjust its display accordingly. Therefore, no up and down scroll bar arrows are required.

At the top of the requester, the word "Directory:", with an input prompt to the right will appear. This will contain the volume name of your **ORGANIZE!** disk or the volume name of the currently logged disk drive.

Some examples: If you select the "Directory:" input prompt with the left mouse button and enter "DF1:", **ORGANIZE!** will automatically start reading the directory of any disk that is in your external drive, aborting the directory listing that is currently in progress. If you entered "DATABASE:" then **ORGANIZE!** looks in any drive that contains the diskette with the volume name of "DATABASE:". Make sure you enter an ending colon, for without it, **ORGANIZE!** will try to log into a sub-directory that does not exist. Any attempt to Store a file or database will result in an "Error storing file" message.

With the Archive requesters, you do not have to wait for the entire directory to appear before selecting another drive. While a directory is currently displaying, enter a new drive/path and press the <RETURN> key. **ORGANIZE!** will abort listing the current directory and start listing the new one.

The last input prompt is the one called "Selection:", which appears right below the directory listing. "Selection:" contains the current selection you are working with or have chosen by selecting the left mouse button on that particular item.

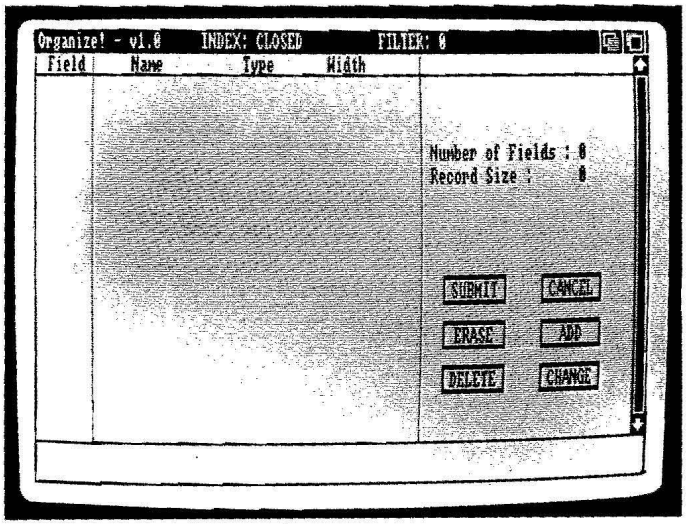
If you enter a specific filename while the directory is displaying and select the Get gadget, **ORGANIZE!** searches immediately for that particular filename and loads it. If the filename is incorrect, an "Error getting file" message will appear.

Attempting to Store a file or database that is the current selection or already exists in the directory, will cause a "File exists, replace?" requester to appear.

At this time, the Database Archive will contain a sample database called Checkbook.db. This is an example database you can examine to learn more about how **ORGANIZE!** can be used. Please wait until you've gone through the User's Manual before looking at it. Right now, select the Resume gadget to return to the main screen of **ORGANIZE!**.

Creating Your Database

Now we're ready to create our database. Hold down the right mouse button and select Create from the Database menu. The following screen will appear:



As you look across the top of the screen, you will see: "Field, Name, Type and Width".

Field - field number. Up to 128 fields are allowed for each database.

Name - field name. Up to 10 characters are allowed for each field name. Letters and numbers are the only acceptable characters for fieldnames.

Type - datatype. Text, Numeric, Date and Yes/No. They control what kind of input is allowed for each field and they are defined as follows:

Text - this datatype accepts any alphanumeric characters (a..z and 0..9). Any illegal characters will cause an "Illegal field name" message to appear.

Numeric - this datatype accepts only numbers, with two exceptions. If the fieldname contains a decimal value, then a period is acceptable, otherwise it will be ignored. Minus signs " - " can be used to identify negative values. The maximum field width for a numeric character is 16, including decimal point.

Date - this datatype accepts a date entry with the format "mm/dd/yy". The forward slash "/" appears automatically when entering the date.

Yes/No - also known as the logical "True/False" field. This field accepts only "Y" or "N" as a valid response.

Width - field width. Up to 254 characters for any Text field. The Numeric field has a maximum width of 16, including decimal point. The Date field automatically defaults to 8 characters and the Yes/No field defaults to 1.

On the upper right-hand third of the screen you should see:

Number of Fields - this is the total number of fields in the current database. If no database is open, the number "0" will appear.

Record Size - the maximum size of any record in the database. The record size is the total of all the individual fields for that database. If no database is open, the number "0" will appear.

Below that appears the following selections:

SUBMIT - this options writes the database information to disk. Used originally to create the database and then later when making changes, such as Adding, or Deleting fields.

ERASE - clears the screen of fields and allows you to start over from scratch. If erasing an already existing database, no changes are made to the original. If you have Submitted a database that you were working on, this lets you start working on a new one.

DELETE - removes a field from the database. No changes are actually made to the database until you have Submitted it. Highlight the fieldname and then select this gadget. A requester will prompt you to confirm the deletion. Take care when deleting a field, as all the information pertaining to that field will be lost when you Submit the database.

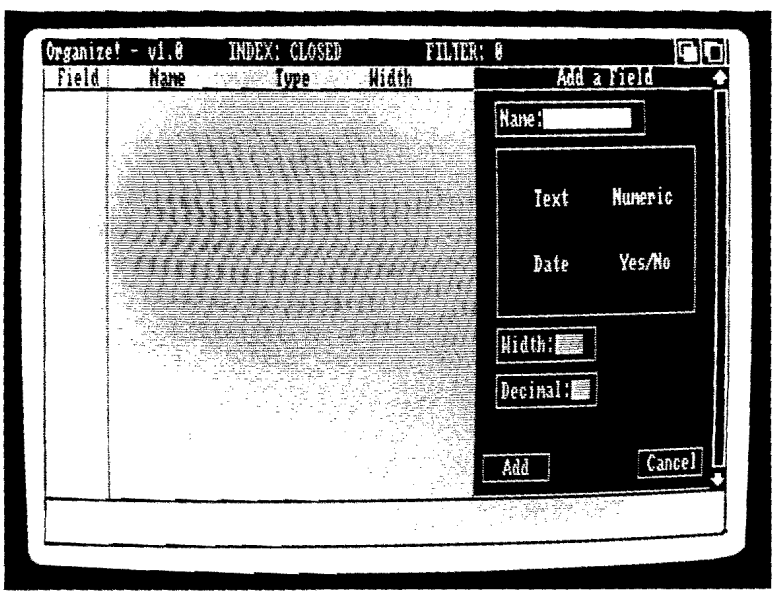
RESUME - exits you from the Database Create or Change mode. No changes to the database are saved unless you have Submitted them.

ADD - adds a new field to the database. Up to 128 fields are allowed. No additions are saved until you do a Submit.

CHANGE - changes an existing field. You would use this to increase the width of a field or change its fieldname. Changes can be made to new and previous databases. Extreme care should be taken when changing an existing database. Never attempt to change the datatype of a field, the conversion from Text to Numeric is not possible and all data for the fieldname would be deleted. If decreasing a field width, the data in the existing fields will be chopped off to match the new field width. No changes are saved unless you do a Submit.

Now select the ADD gadget with the left mouse button to start creating our database.

This screen will be displayed:



Across the top of the ADD requester you will see the header, "Add a Field". Below that is the field name prompt. Select that input prompt with the left mouse button and enter the fieldname "FIRSTNAME". Upper or lower case does not matter unless you wish your database to be dBASE III compatible, in which case, all fieldnames MUST be entered in UPPER case. dBASE III is a popular database program for IBM and compatible computers.

Move to the box below that, which contains the names: "Text, Date, Numeric and Yes/No". Press the left mouse on the "Text" option. You will see a box appear around the word.

Underneath that box is the field width prompt. Select the box with the left mouse button and enter the number "15". Below is the Decimal prompt, which we can ignore at this time. At the bottom of the requester the gadgets, "Add and Cancel" are displayed. Select the Add gadget to add "FIRSTNAME" to our database.

The Add a Field requester will clear and the field information we entered will appear on the screen to the left. Now select the Name prompt and enter "LASTNAME". The data type selected is still Text, so we can continue past it to the Width field. Select that field with the left mouse button and enter the number "20". You'll notice that the previous field width was still there. Use the backspace, delete or Right Amiga X key to clear the entry. This will aid you when having to enter many fields of the same data type and width. Now select the Add gadget and verify that the new field has been added. You should now see two entries on the left side of the screen.

Let's add a Middle Initial field to the database. While in most instances, it does not matter in what order the field names are entered, for this exercise we're going to insert a new field name between FIRSTNAME and LASTNAME (purely for cosmetic reasons). Select the Cancel gadget at this time.

The screen should display the two field names entered. To the right, the "Number of Fields" should contain the number "2" and the "Record Size" should be "35". Let's see, "15 + 20 = 35". That sounds right. Move the mouse pointer to LASTNAME and select it by pressing the left mouse button on that line. The field information will be highlighted. Now select the Add gadget.

An "Insert" gadget will appear in the requester. Enter "MI" in the field name prompt. Select the Text datatype and enter a field width of 2. Now select the Insert gadget. The MI field name has been inserted between FIRSTNAME and LASTNAME. You'll also notice that the LASTNAME field has been re-numbered to 3.

Now Add the following fieldnames:

Fieldname	**Data type**	**Width**
COMPANY	Text	20
ADDRESS1	Text	20
ADDRESS2	Text	20
CITY	Text	20
STATE	Text	2
ZIP	Text	10
WORKPHONE	Text	13
EXT	Numeric	3
HOMEPHONE	Text	13
AGE	Numeric	2
DOB	Date	8

ANN	Date	8
CHILDREN	Yes/No	1
EARNINGS	Numeric	9 Decimal 2
COMMENTS	Text	20

"WORKPHONE" is considered a Text datatype because of the "()-" characters normally entered as part of a phone number. When you get to "EXT", you'll select the Numeric datatype. "DOB" and "ANN" default to a column width of 8 when selecting the Date field. The "CHILDREN" field will default to 1 after choosing the Yes/No datatype. For the "EARNINGS" field, enter a 2 in the decimal input prompt. This represents the number of integers after the decimal point.

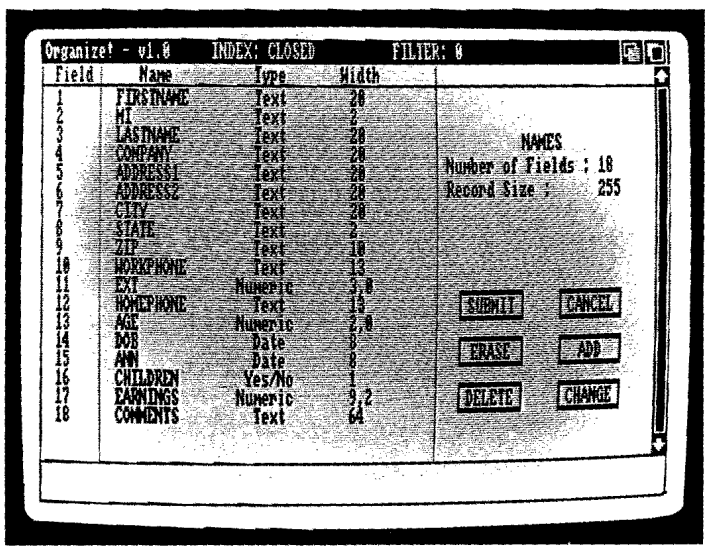
A brief explanation of some of the fieldnames: "EXT" is for a telephone extension number. "DOB" stands for date of birth, "ANN" is a wedding anniversary. The "CHILDREN" field looks for a "Y"es or "N"o. The other fieldnames should be self-explanatory.

Let's make a change to this database before we Submit it. Select the Cancel gadget and then select the "COMMENTS" field. Now select Change. The header should read "Change a Field" and all the fieldname information should appear within the requester. Select the Width field with the left mouse button and change the value from 20 to 64. When that is done, select the Change gadget. Selecting the Cancel gadget at this time would abort any changes you just made to the fieldname.

An important point to remember when selecting field widths for Text datatypes: While you are allowed up to 254 characters, only 64 characters can be displayed in the field at one time. If you try to enter the 65th character, the information in the field will start scrolling to the left. Therefore, we recommend keeping field widths to 64 characters or less.

If trying to Add fieldname information without the fieldname, an error message "Fields must have a name !!" will display. If trying to save a duplicate fieldname, the message "That name is in use !!" will appear

Your screen should now look like this:



If you do not see this same listing, then you did not follow the procedures for adding new fields as outlined, and may need to re-read the instructions for Adding new names.

Assuming your screen does look the same, select the SUBMIT gadget. A requester will appear asking for the name of the database. The currently logged drive or volume name may appear with an ending colon. If no volume name displays, it means you are using the same drive **ORGANIZE!** was booted from. Enter "NAMES" (without the quotes, of course) after the colon and press the <RETURN> key. If all goes well, the message: "NAMES has been created !!" will appear. Select the RESUME gadget with the left mouse button.

Choosing a name that already exists, will cause a "Replace database?" requester to appear. When Changing an existing database, an "Alter database?" requester will display. Changing databases will be dealt with later in the manual.

Select the RESUME gadget to quit creating. A requester will appear asking you to confirm this. Select the "OK" gadget to say "Yes".

Now that the database has been created, we need to open it. **ORGANIZE!** does not automatically open a database when it is created, allowing you the flexibility to create more than one database at a time.

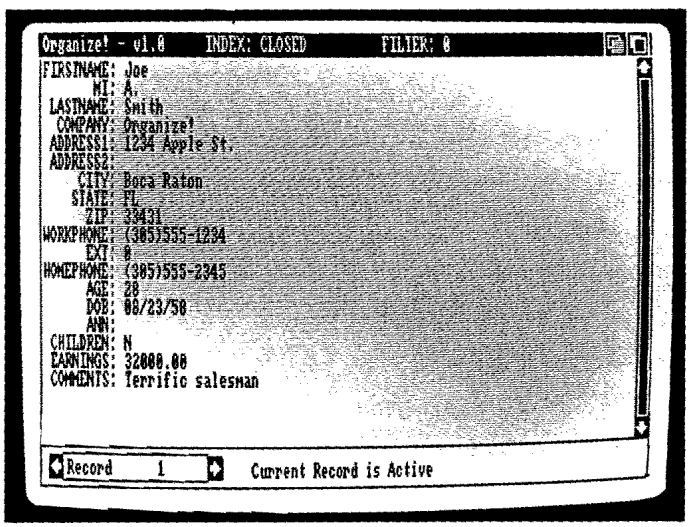
The next chapter deals with data entry and indexing for your new database.

CHAPTER 3
ENTERING DATA

Entering Data

Move the mouse pointer up to the Database pull-down menu and select Archive. If you are logged into the **ORGANIZE!** disk, two names should appear: CHECK-BOOK.db and NAMES.db. If you stored the sample database on another drive other than your working copy of **ORGANIZE!**, log into that disk. Then NAMES.db should appear in the directory. Select the NAMES.db with the left mouse button. That name will appear in the "Selection" input prompt at the bottom of the requester. Now, select the Get gadget to load the database into **ORGANIZE!**.

The screen will clear and the fieldnames you entered earlier will appear on a new screen in the same order as they appeared when you Submitted them. The only difference will be the appearance of a colon after each fieldname. Along the bottom of the screen, a Record gadget will appear with ghosted scroll arrows.



ORGANIZE! automatically defaults to the Add mode when no records are found in the database. Let's add some sample records into the system. Enter the following:

FIRSTNAME:	Joe
MI:	A.
LASTNAME:	Smith
COMPANY:	Organize!
ADDRESS1:	4301-18 Oak Circle
ADDRESS2:	
CITY:	Boca Raton
STATE:	FL
ZIP:	33431
WORKPHONE:	(305)555-1234

EXT:	
HOMEPHONE:	(305)555-2345
AGE:	28
DOB:	08/23/58
ANN:	
CHILDREN:	N
EARNINGS:	32000.00
COMMENTS:	Terrific salesperson

If you try to enter more information than a field can hold, the screen will flash. When your screen looks like this, press a Right Amiga S to store the record in the database. Or, optionally, you can move the mouse pointer to the Forms menu and select Record. A pop-out menu will appear listing "Erase, Undo, Store, Delete and Recall". Select Store. When the record is saved, your entry will be cleared and the cursor moved to the first field, ready for the next record. Keep in mind that numeric fields will always default to "0" if nothing is entered and Yes/No fields will default to "N".

The Record gadget number will change from "1" to "2". The number displayed will be the next record number stored in the database. If you accidentally press the Right Amiga S key twice, you will end up with a blank record. If you accidentally enter blank records, do not worry, they can be deleted later.

Other useful keyboard commands when adding new records are:

Function	**Keyboard**
Store record	Right Amiga S
Erase field from screen	<CTRL>-X
Erase record from screen	Right Amiga X
Move down a field	<RETURN>

Function	Keyboard
Move down a field	Down arrow
Move up a field	Up arrow
Move to top of Form	SHIFT Up arrow
Move to bottom of Form	SHIFT Down arrow

Moving from one field to another can also be accomplished by selecting the left mouse button on a particular field. The cursor will be positioned in the first space of that field.

Remember, when adding records, no changes are saved until you Store the record. That means you are free to edit the entry in any manner you'd like. Clearing a field (<CTRL>X) or record (Right Amiga X) will allow you to quickly remove incorrect field entries without the necessity of holding down the delete key at each field to enter new information.

The status line "Adding New Records" will appear at the bottom of the screen. Enter the following record. When all the information for that record has been entered properly, store the record using a Right Amiga S or select Form Record Store from the menu.

FIRSTNAME:	George
MI:	B.
LASTNAME:	Jones
COMPANY:	Scribble!
ADDRESS1:	P.O. Box 58
ADDRESS2:	Winston Dr.
CITY:	West Palm Beach
STATE:	FL
ZIP:	33405
WORKPHONE:	(305)555-3456
EXT:	218
HOMEPHONE:	(305)555-4567

AGE:	54
DOB:	02/11/32
ANN:	06/18/00
CHILDREN:	Y
EARNINGS:	54000.00
COMMENTS:	Best distributor in WPB area.

Store the above record (Right Amiga S) and enter this next one:

FIRSTNAME:	Mary
MI:	C.
LASTNAME:	Johnson
COMPANY:	Analyze!
ADDRESS1:	39932 Grand View Ln.
ADDRESS2:	
CITY:	Ft. Lauderdale
STATE:	FL
ZIP:	33331
WORKPHONE:	(305)555-5678
EXT:	
HOMEPHONE:	(305)555-6789
AGE:	25
DOB:	03/04/61
ANN:	
CHILDREN:	N
EARNINGS:	34500.00
COMMENTS:	Leaves for vacation on 10/15/86 for two weeks.

Store this last sample record. Continue entering your own sample records to provide additional examples when we start exploring **ORGANIZE!**'s more advanced features. Enter at least another 6 records. Storing a record with no information in any of the fields will cause a blank record to be saved in the database. Blank records take up just as much space as records filled with information.

Indexing Data

Indexing a field is necessary should you want the data for your reports sorted in either alphabetical or numeric order. Say you wanted a mailing list printed in zip code order, then you would Create an index for the ZIP field.

ORGANIZE! permits only one index open at a time, per database. Examples of including an indexed fieldname for a sorted report will be discussed in the Reports section. Right now we're only concerned with making you familiar with **ORGANIZE!**'s Index procedures.

Move the mouse pointer to the Index menu at the title bar. Archive, Close and Create are displayed when the menu is pulled down. Since no index is currently open, close is ghosted and is not a valid option at this time. **ORGANIZE!** may only allow one index to be open, but you can create indexes for each field of your database, should you wish. Select Create from the Index menu. A requester will appear with the message "Field name to Index". Enter the field-name "ZIP" and press <RETURN> or select the "OK" gadget with the left mouse button.

Depending on the number of records in your database, you may or may not see a status requester counting the number of records that it is indexing. If you have less than 20 records, most of the time the index is created too quickly to display on screen.

Now you have created an index for the ZIP field. The index created is good only for the records that exist in the data-base now. Adding more records to the database will require you to create another index for the ZIP field, or else open that index before adding new records. This will be explained shortly.

At this time, you may create indexes for several other field-names. For this example we will not require you to do so, but please feel free to create as many as you'd like, it will serve to make you more comfortable with the program.

When you have finished creating your indexes, select Index Archive with your mouse pointer. An Archive requester will appear with a listing of all indexes created.

Select the ZIP.ndx with the left mouse button and select the Get gadget. You have now opened an index for the ZIP field. With an open index, any records added will automatically update that index file. In other words, with an open ZIP index, there will be no need to create a new index for the ZIP field before running a report.

As we mentioned earlier, when you create an index, only the current records in the database are indexed. If you did not open an index and added additional records, you would need to Create a new index for the ZIP field, or risk not having some of your records printed out in a report looking in that index.

Creating an index takes little time if the database isn't too large, while allowing you to index as many fields as necessary. Opening an index will insure that only that particular index is updated. If more than one type of report is run, each requiring a different field to be indexed, then nothing is really gained.

However, in some instances where you normally sort on just one field (ZIP for example), some time could be saved by opening an index when adding new records to a database. If the index is opened, and that is the ONLY field that must be indexed for your reports, then the time it takes to Create a new index for the ZIP field could be better spent running the report.

While an index is open you still have the ability to Create other indexes. The only other option left is to Close the index that is currently open. You will notice that the Index Archive is now ghosted. This prevents you from trying to open more than one index at a time.

If you Create a new index when one already exists, but is not currently opened, the new one will over-write the old. In effect, this updates the index. Trying to Create an index that is already open will result in an error message of "Can't create Index file !!".

Now that you have entered and indexed data, you will want to be able to retrieve and update it. **ORGANIZE!** allows the creation of custom displays (called Forms) for data entry and retrieval. This will be the topic of the next chapter.

At this time, we are going to close the database and exit **ORGANIZE!**. There are two ways of doing this: by selecting Project Quit or selecting Database Close and then Project Quit.

Database Close writes any records still in memory and writes them to disk and updates the index, if one is open and allows you to select Project Quit or Database Open (if you wanted to work with another database). Project Quit automatically performs the same functions as Database Close, but will also exit **ORGANIZE!**.

Choose one of the above options to quit the program and return to CLI or Workbench.

IMPORTANT REMINDER: Never reboot the machine or remove a disk from a disk drive while the red drive light is on. This could cause irretrievable data loss. As with any program, it is always good practice to backup your important data.

Should you experience a power out or be forced to reboot without having closed the database or exiting the program properly, all you will lose is whatever data is still remaining in memory. This is not fatal and can be easily remedied by re-entering the data for the last few records missing.

CHAPTER 4
RETRIEVING DATA

Retrieving Data

Very often, you will need to be able to retrieve and change records that you have entered into your database. **ORGANIZE!**'s custom screens (called Forms) for data entry and retrieval makes this a pleasure and not so much a chore.

If **ORGANIZE!** is not loaded, please boot up the program at this time by pressing the left mouse button twice on the **ORGANIZE!** icon. When **ORGANIZE!** is loaded, select Database Archive from the menu. If you have saved your sample database to another disk, please log into that disk when the Archive requester appears. Select the "NAMES.db" from the listing with the left mouse button and then select the Get gadget. We have just opened our sample database.

This chapter will deal mainly with the Forms menu. This menu contains most of the common menu selections you will need for maintaining your database. Hold down the right mouse button and move the mouse pointer to the title bar. Select the Forms menu and move the pointer down, you will see the following:

Form
Archive
Change
Mode
- **Update**
- **Add**
- **Recall**
- **Pack**

Record
- **Erase**
- **Undo**
- **Store**
- **Delete**
- **Recall**
- **Print**

Field
- **Erase**
- **Undo**

The Forms Change selection has a separate screen that displays when it is active, which will be covered in a little while.

If you are not in the Update mode at this time, please select Forms Mode Update with the right mouse button. **ORGANIZE!** normally defaults to the Update mode when booting up. If there are no records in the database, the default mode is Add. The first record we entered into the database should now be displayed.

You can switch between the Add and Update modes with the Right Amiga A and U keys, respectively. In the Update mode, there are a number of keyboard commands that can be used to look through your data. They are:

Change record commands:

Function	**Keyboard**	**Form Menu Command**
Erase field from screen	<CTRL>-X	Field Erase
Erase record from screen	Right Amiga X	Record Erase
Undo field	<CTRL>-Q	Field Undo
Undo record	Right Amiga Q	Record Undo

Write record	Right Amiga S Record Store
Delete record	Right Amiga D Record Delete
Recall record	Right Amiga R Record Recall

Search record commands:

First record	<ALT>-F
Last record	<ALT>-L
Next record	<ALT>-N
Previous record	<ALT>-P

Move field commands:

Move up a field	Up arrow
Move down a field	Down arrow
Move down a field	<RETURN>
Top of form	SHIFT Up arrow
Bottom of form	SHIFT Down arrow

The Form Menu commands are keyboard equivalents. To access them, press the right mouse button, move to the title bar and pull down the Form menu. Moving the highlight bar to the Record or Field selection will cause a pop-out menu to appear. Simply select the appropriate secondary command at that point. While this is generally more time-consuming than entering the keyboard equivalent, we recognize the needs of our users and have provided a great deal of mouse support.

ORGANIZE! also allows you to scan through the database with the mouse. At the bottom of the screen is a Record gadget; next to it is a status line that reports whether the current record is active or inactive. The number displayed in the center of the gadget is the actual record number. When you are in the Update mode, the two scroll arrows will not be ghosted. The left scroll arrow displays the previous record number and the right scroll arrow displays the next record.

By entering a number in the record gadget itself and pressing the <RETURN> key, you can force **ORGANIZE!** to display a specific record, should you know the exact record number that you are looking for.

Let's try it: select the Record gadget by moving the mouse pointer down to the number "1" in the gadget and pressing the left mouse button. A cursor will appear on or near the number, depending on your aim. Use the backspace or delete key to remove the "1" and replace it with a "3". Press the <RETURN> key when you've finished.

Mary C. Johnson's record will display if you entered the examples given in the last chapter. Experiment with the scroll arrows by selecting both the left and right arrows. When you reach the first and last records, that record will continue to re-display. If the first or last record happens to be inactive (due to deletion), a requester with "No more active records !!" will appear.

Both active and inactive records can be printed with the **Record Print** or Right Amiga H key. Just the current record and Form on the screen will be sent to the printer. This would be used when printing individual invoices, etc.

Experiment with the keyboard commands to scroll through the sample records. You'll probably find that you'll use them far more than you will the mouse for data retrieval.

If you did not enter any sample records beyond the 3 we gave you, please do so now. Create another 6 or so by selecting Form Mode Add, making sure you save each record with a Right Amiga S when you're done entering data. When you've finished, select Form Mode Update.

ORGANIZE! allows the editing and deletion of active records during the Update mode. Any changes made to a record will be lost unless you store it. When editing a record or field, the change record commands can be used to abort an edit and re-display the original entry. Let's try this. Select one of the sample records you entered, make a change to the FIRSTNAME field and then press a <CTRL>-Q. Optionally, you can select Form Field Undo with the right mouse button. The original field for that record will re-appear. To restore the entire record after making changes to several fields, select Record Undo or press Right Amiga Q.

Remember, when making changes to a record, they can only be recovered with the Undo commands until the record is stored again. After the record is stored, the new information is stored in memory. Trying to Undo a field or record at that point will be useless. Nothing will recover (Undo) an original record or field that was accidentally stored after being edited and saved.

If you make a change to a record without saving it and then switch Modes, a "New changes will be lost" requester will display. This is your last chance to store the record you have edited without losing anything.

When in the Update mode, you not only have the option of editing records, but deleting them, if necessary. To the right of the Record gadget, appears a status line that reports whether the current record is active or inactive. The only records ever displayed in the Update mode will be active records. Inactive records can be viewed and recovered with the Recall mode, which is the third option under the Forms Mode menu.

When a record is deleted, it is made inactive. Inactive records are ignored by the system during reports, but can be Recalled and made active again. To practice this, we'll delete a couple of the sample records you just created.

Use the keyboard commands or select the Record gadget scroll arrows with the left mouse button to look through the records. Do not delete the 3 we entered in the last chapter! After picking a sample record, delete it by pressing a Right Amiga D or selecting Record Delete from the menu. An "OK to delete record?" requester will appear. Select "OK". The status line at the bottom of the screen will have changed to "Current Record is Inactive".

Do the same with one or two more of your sample records. Once a record is deleted, it can no longer be viewed from the Update mode. When you have finished deleting, select Form Recall from the Form Mode menu.

The Recall mode checks for the closest inactive record from the current record number to the end of the database. If none are found, it will look backwards. The same record search commands that are used with the Update mode can be used when in Recall. Should no inactive records exist, a "No more inactive records !!" requester will appear.

Go to the first inactive record in the database by pressing an <ALT>-F from the keyboard. Only inactive records will be displayed in Recall mode, the same way that only active records can be viewed while in Update mode. Use the Record gadget scroll arrows or keyboard commands to scroll through the inactive records. When you have verified that the records you deleted previously are displayed from Recall, go back to the first inactive record in the database.

Recall one of the inactive records by pressing a Right Amiga R or by selecting Record Recall from the Forms menu. The status line will inform you that the "Current Record is Active". In this way, accidentally deleted records can be recovered with minimum effort. Leave at least one or two of your inactive records un-Recalled. They will be used as examples for Packing the database. The Recall command can only be performed when in the Recall mode.

Inactive records can take up a lot of disk space. If you delete a lot of records in your database, they have the effect of slowing down your system performance considerably. **ORGANIZE!** has a feature to allow you to recover lost disk space due to inactive records. This function is called **Pack** and is the fourth option under the Forms Mode menu.

What Pack does is check the database for inactive records. Any inactive record found is deleted from the file permanently, making it unrecoverable. At the same time, the disk space the record occupied is reclaimed. Depending on the number of inactive records, quite a bit of disk space can be recovered.

Before Packing a database, it is always a good idea to make backups of your data. A power loss or unexpected problem could cause irretrievable damage to your database. Another good practice would be to search through all your inactive records while in Recall mode to verify that the inactive records will not be needed. Once a database is Packed, those inactive records are permanently removed and cannot be Recalled.

Assuming you have made a backup of this precious data, select Form Mode Pack. A requester with "OK to pack database?" will appear. Select "OK" and a status window will display in the middle of your screen. While Pack is running, Organize! will report the record number that it is checking as well as the number of inactive records that were removed from the database. As with the Indexing function, this window may disappear too quickly when only a few records exist in the database.

Packing starts from the first record of the database. Once a Pack is performed, all records are re-numbered starting with number 1. If you are using record numbers to locate specific records, please keep this in mind: Pack will re-number your records.

After Packing a database, it will be necessary to create brand new indexes. The old ones will no longer be compatible since they are trying to reference records that have changed position in the database.

Customizing Forms with ORGANIZE!

The next Form menu selection to be be explained is Form Change. While it appears second under the Form menu, we felt this powerful feature of **ORGANIZE!** should not be explained until you had a better understanding about data entry and retrieval.

ORGANIZE! supports data entry and retrieval through custom Forms. The screen we have been working with is the default Form. With your own Forms, you can arrange the fields in any order you like. Additional text can also be entered to enhance the appearance of the Form for your reports and to provide instructions to whomever is doing your data entry.

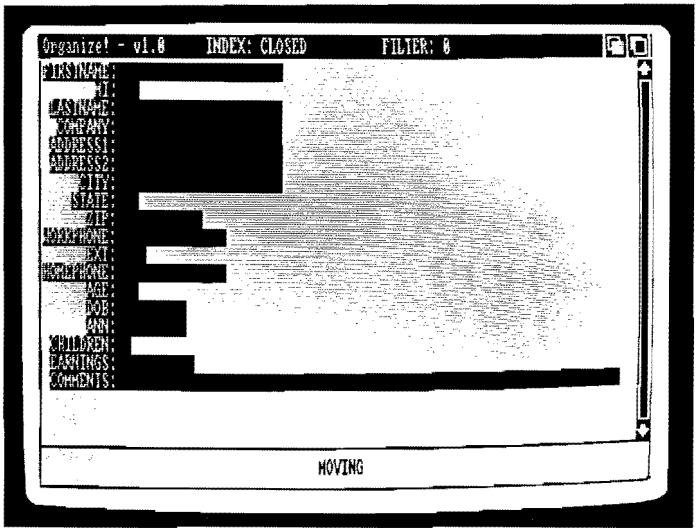
Forms can be created for a number of applications. You may have one person entering data entry in certain fields and another retrieving data from other fields. With **ORGANIZE!**, you can create a Form that displays just those fields. Plus, you are allowed an unlimited number of Forms for your reports.

A powerful math package has been included with **ORGANIZE!** that would put most spreadsheets to shame (except for Analyze!, of course). With these math functions, **ORGANIZE!** can perform sophisticated calculations, effectively turning your database into a mini-spreadsheet.

Accumulators are supported to allow calculations and running totals between records during reports and regular database searches. All this, plus the ability to create as many Forms as disk space will allow, makes **ORGANIZE!** an extremely flexible and effective tool for your database needs.

Now that you have an idea of what Forms are capable of, let's create one.

Select Form Change with the right mouse button. The following screen will be displayed:



Any record displayed will be cleared and all fields will be highlighted. Press down on the right mouse button and move the mouse pointer to the title bar. There are two pull-down menus available. They are:

Form
Archive
List
Resume

Action
Add
    Entry Area
    Formula
    Text
Change
Delete
Move

Action Move will be checkmarked. This is the default Action when selecting Form Change. Form Archive takes you to a requester that allows you to Store, Delete and Get different Forms. List will abort whatever changes you have made and will re-display the default Form. You will use this to create a brand new Form. Resume will abort Change and return you to the main menu of **ORGANIZE!**, using the current Form.

Forms' greatest attraction is that you can re-arrange the individual fields in any order you like. The only limitations are that Forms can only be 78 columns wide and 255 lines long.

To the right of the screen appears a scroll bar with scroll arrows at the top and bottom of the gadget. The bottom of the screen displays a status box with the word MOVING in it.

Let's move the MI field to the right of FIRSTNAME. Select the MI field by positioning the mouse pointer on the field and pressing the left mouse button. While holding down the mouse button, move the field around. It will flicker slightly as you move it around. Trying to push a field too far to the right or left will cause the field to "snap back" until it is flush with the margin. If you bring the field to the bottom of the screen, it will start to scroll. You can go as far down as 255 lines before it will stop scrolling, which means you can go no further. The scroll bar to the right of the screen will not adjust until the field has been placed by releasing the left mouse button.

Try this. Move the MI field to where the status box is. The screen will start to scroll up. Continue to hold the mouse button down. When you've reached the 255th line, the MI field will appear in the status box. This means you can go no further. Move the field up where it is on top of the status box. Release the mouse button. You will see the scroll bar adjust itself. To move back to the top of the Form, bring the mouse pointer to the scroll bar. Press the left mouse button and hold it down. The scroll bar will turn black. Move it to the top of the scroll gadget and release the mouse button. The top of the Form will be displayed.

The scroll gadget arrows can also be used to move one line at a time. Moving a page at a time is done by pressing the left mouse button on the scroll bar. Pressing the mouse button either above or below the scroll bar will cause the screen to page in that direction.

If you move the fields around too much, to the point of confusion, you can start from scratch by selecting Form List from the menu, with the right mouse button.

Bring the field to the top of the screen. This will start the screen scrolling upwards. The scroll bar will follow the field's approximate position in the Form. When you've reached the top of the Form, position the field back where it was, under FIRSTNAME.

Notice that the scroll bar is now solid. **ORGANIZE!** considers the last field to be the last line of the Form. When we put the MI field back where it was, Organize! reclaimed the empty lines after COMMENTS.

While you are in the Move mode, overlapping fields will force all fields down one line when you release the mouse button. Two fields cannot exist in the same place. Depending on the amount of overlap, the field to be moved will either force all others down one line, or it position itself below the field it overlapped, while pushing all the other fields down one line.

To gain an appreciation of this, it will be necessary to experiment with moving the fields around and forcing overlaps. Extra blank lines between fields can be removed easily when in the Action Delete mode. This will be explained later.

Now, move the MI field so that it is a couple of spaces to the right of the FIRSTNAME field. When that is done, do the same with the LASTNAME field, placing it to the right of the MI field. The FIRSTNAME, MI and LASTNAME fields should now be on one line.

You now have two blank lines that are not needed. Hold down the right mouse button and select Action Delete from the menu.

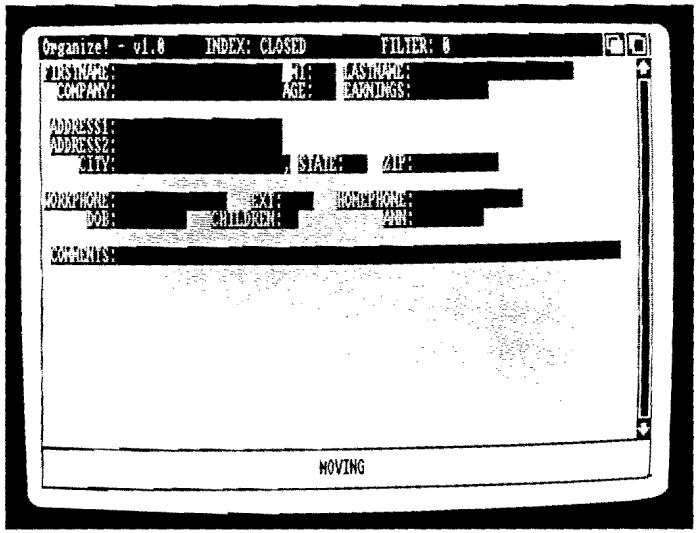
To delete unwanted fields on a form, select the field, like you would when moving it, and drag it down to the status box. It is now now labeled DELETING. Release the mouse button to delete it. We'll practice that later. To remove blank lines, simply press the left mouse button down on the blank line you wish deleted. All other lines will move up one.

There are two blank lines between the FIRSTNAME field and the COMPANY field. Press twice, once on each blank line, to remove them. Do not worry about accidentally deleting fieldnames, the only way those can be deleted is to 'dump' them in the DELETING status box.

Insert a blank line between COMPANY and ADDRESS. Select Action Move, since we're done deleting. Now, overlap the ADDRESS1 field with the ADDRESS2. Be careful not to overlap the ADDRESS1 over ADDRESS2 more than halfway, this would cause ADDRESS1 to appear below ADDRESS2. Just push everything down one line.

When finished, select Action Add Text, with the right mouse button, from the menu. A requester prompting you to "Enter new text" will appear. Enter a "," and press <RETURN>. A small cursor with the comma is now attached to your mouse pointer. Move this comma until it is next to the CITY field and press down on the left mouse button to release it. Any report printout will now contain a comma between the CITY and STATE.

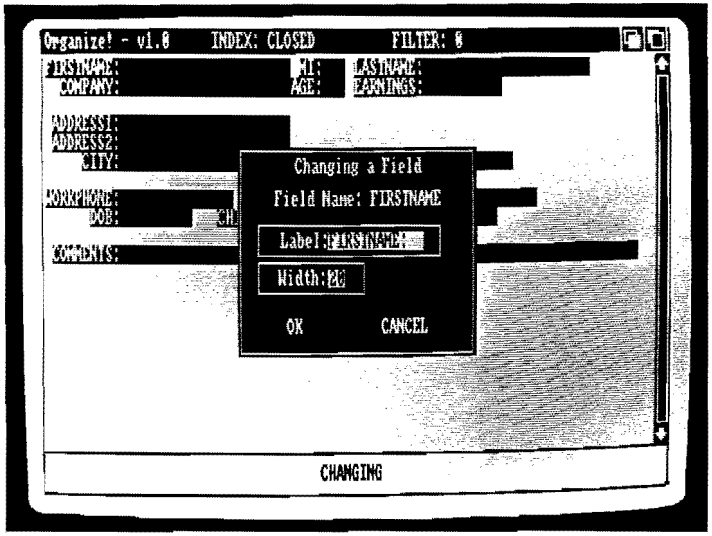
Now move the rest of the fields. Using the Move and Delete Actions, please adjust your Form so that it appears like this:



At any time your screen becomes so jumbled that it is useless to continue (don't worry, you'll get the hang of it), select Form List from the menu to start from scratch.

When you've finished moving the fields, select Action Change with the right mouse button. The status box will display "CHANGING". This action is used to create alternate fieldname labels. A label can not only be used to better express what the field is for, but also enhances the overall appearance of the Form. Try it to see for yourself.

Move the mouse pointer to the FIRSTNAME field and press the left mouse button. A requester like this will appear:



The fieldname as listed in the database will appear on the second line of the requester. Underneath it will appear the name "Label:" with an input prompt next to it containing the fieldname we defined when we created the database. Enter "First Name: ", in the prompt, making sure you enter a space after the colon. Otherwise, when you go to enter the data, the information will appear flush against the label.

Beneath the label information is field width information. The value appearing is the field width default. By increasing the width, you gain nothing. The maximum amount of data for each field has been defined and can only be changed with the Database Change function. If you had a rather large field and wanted to decrease the width to make a report more presentable, you would do that.

A good example is the COMMENTS field. You could change the width to 20 since it is unlikely you would need the full 64 columns. This would chop off any data displayed on the screen after the 20th column, but still allow a full 64 character entry; after the 20th character, the data would scroll to the left. For our sample database, we will not be changing any of the field widths.

If you are satisfied with the label, select the "OK" gadget with the mouse at this time. Selecting "Cancel" will abort any changes you made to the label. The Form will re-display with one change. The fieldname for "First Name: " has increased by one character. Do not worry about it at this time. After the rest of the labels are created, you can adjust the fields with the Action Move function.

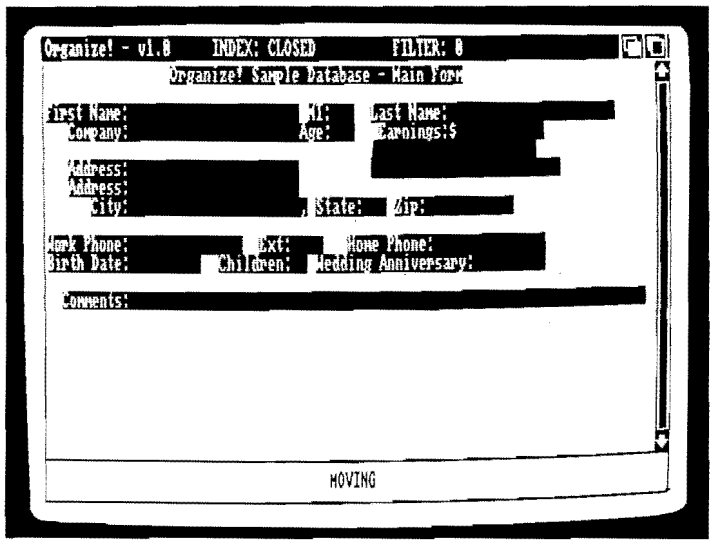
Here's a hint for creating labels larger than 10 characters:

The ANN field is an abbreviation for Wedding Anniversary. Since we want the whole name displayed and there isn't enough room for that large of a label, we'll go another route.

Select the ANN field. Enter just a ": " for the label name; don't forget the space after the colon. Now, select Add Text from the Action menu. Enter "Wedding Anniversary" in the input prompt and select the "OK" gadget. With the text attached to the mouse pointer, position the Text in front of the colon label. You will need to Move some of the fields for everything to line up properly.

Be careful when doing this! Since the Text information and the label are not attached, it is very easy to accidentally place the wrong label against the wrong Text field. If you are in doubt, select the questionable label with the left mouse button when in the Action Change mode. The requester will appear with both the label name and the fieldname, to which it references.

Create the rest of the labels by selecting each of the field-names and then moving them. They should appear as shown below:

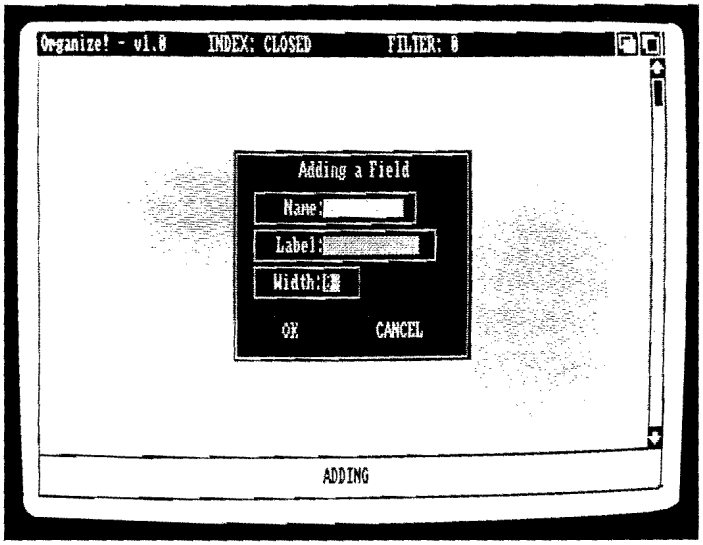


Notice that ADDRESS1 and ADDRESS2 were both labeled "Address". **ORGANIZE!** does not care what label you create for a fieldname. They could all have the same label and **ORGANIZE!** will accurately keep track of the data for each field. For that matter, no label name need be attached to the fieldname at all, in instances where you just wish the data to be displayed without corresponding text.

The last Action function is Add. When selecting it, a pop-out menu appears with three options. The first option is "Entry Area". If you've accidentally deleted a field from the Form, and do not wish to start the Form from scratch, select this option.

Trying to Add an Entry Area when the field already exists will cause an error. Select Action Delete and move the MI field down to the status box. To delete it, release the left mouse button while the field is inside the box.

Now recover the MI field by selecting Add Entry Area. The following requester will appear:



Select the input prompt next to the "Name:", enter "MI" and press <RETURN>. Until now, the Label field has been ghosted. If you enter an illegal fieldname, the requester, "No such field exists !!" will display. Entering a fieldname that exists but has not been deleted, brings up a "Field in use !!" requester.

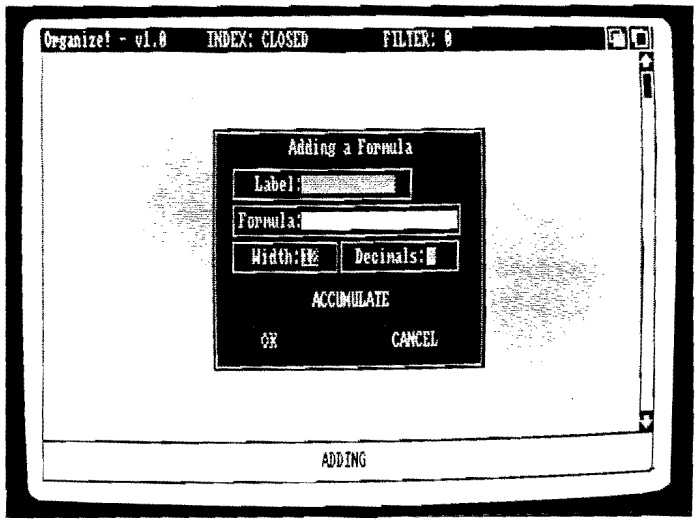
If the fieldname is correct, the "Label:" input prompt will un-ghost. If you desire to create an alternate label for the fieldname, enter it here. The "Width:" field should be left alone. Select the "OK" gadget. Attached to the mouse pointer is the MI field. Move it next to FIRSTNAME and press the left mouse button to release it.

Move the mouse pointer to the title bar and select the Action menu. Delete should be checkmarked. Action Add is a one-time selection. You will automatically be returned to the previous Action after completing an Add function.

The next Add menu selection is Formula. This is one of **ORGANIZE!**'s most powerful features.

Imagine a database program with the mathematical capabilities of the best electronic spreadsheet available for the Amiga. We're, of course, talking about Analyze!. If you have our spreadsheet program, then you should have no trouble grasping the sophisticated math functions of **ORGANIZE!**

Select Add Formula from the Action menu with the right mouse button. The following requester will display:



Only the "Cancel" gadget and Formula input prompt are un-ghosted. Enter the following formula: "EARNINGS/52" and press the <RETURN> key. Formulas can be up to 80 characters in length. The rest of the requester will un-ghost itself at this point. Had you entered an illegal formula, the requester, "Invalid Formula !!" would have appeared.

In the Label prompt, enter "Wkly Earn:$ " and press the <RETURN> key. Change the Width to "9" and the Decimal to "2". The ACCUMULATOR gadget should NOT be surrounded by a box. When that is done, select the "OK" gadget. The label will be attached to the mouse pointer, position it so that it is right below the "Earnings" field. If you accidentally insert a line, go ahead and delete it.

These Formulas are called derived fields. They do not take up record space, nor will they be saved as part of the record. However, they are perfect for performing calculations and displaying totals. Their only drawback is their inability to reference another derived field. In other words, Formulas may only work with legitimate database fieldnames. Do not enter label names as part of a Formula, otherwise an error will occur.

Select Add Formula again. Enter "Totl. Earn:$ " and press the <RETURN> key. Enter the same formula as we did above, only this time select the ACCUMULATOR by pressing the left mouse button in the gadget. It should now be surrounded by a box. When that is done, select the "OK" gadget and position the field under "Wkly Earn:$".

This type of derived field is called an Accumulator. It stores information from one record to the next, allowing a running total to appear while searching or printing reports. This is one of the more powerful uses for the derived field.

Changing a Formula is as simple as selecting Action Change from the main menu and selecting the Formula field with the left mouse button.

Lets take a quick look at what the derived field does. Select Archive Resume from the main menu. If we are not in Update mode, select Form Mode Update. The screen will appear with one of our sample database records. Notice the value in our derived field. The person's weekly salary is clearly displayed under his EARNINGS. As you scroll through the database, you will see the field automatically adjust its value accordingly.

The Accumulated field will increase as each record is retrieved. To clear an accumulated field, press an <ALT>-0.

Having verified that the derived fields work and that their Formulas are performing properly, select Form Change so that we may finish the changes to the Form and store it.

Mathematical Operators

ORGANIZE!'s derived fields have the ability to perform calculations on both numeric datatype fields and numbers, using the following mathematical operators:

^	Exponential calculation
*	Multiplication
/	Division
+	Addition
-	Subtraction

They are listed in order of precedence. To multiply the value of fieldname NUM1 by 1.05 (which increases the value by 5 percent), type in the formula:

NUM1*1.05

Parentheses can be used to force some calculations before others:

NUM3*(NUM1+1.05)-3.45

would force the addition of the fieldname NUM1 and 1.05, then multiply that result to the value of fieldname NUM3. The result from that would then be subtracted by 3.45. To carry the process one step further, nest parentheses:

(NUM3*(NUM1+1.05)/23)-3.45

When using parentheses, make sure you balance the formula by having the same number of open and close parentheses. Otherwise, an error message will appear.

Logical Operators

ORGANIZE! permits "logical" or "conditional" statements that test for relationships between values and return either a "TRUE" or "FALSE" result.

This result can be useful when combined with certain of the @functions.

Some examples:

AGE=22 The value in the fieldname is 22.

AGE>10 The value in the fieldname is greater than 10.

If a statement is TRUE, its value is -1. FALSE statements have a 0 value.

ORGANIZE! recognizes the following operators for Text, Numeric, Date and Yes/No datatypes:

=	equal
<	less than
<=	less than or equal
<>	not equal
>	greater than
>=	greater than or equal

Compound Conditionals (lower precedence):

#NOT#	logical not
#AND#	logical and
#OR#	logical or

Special Formula Functions (@functions)

The following information is a list of **ORGANIZE!**'s many mathematical functions, with some brief examples. The NUMx fieldnames are example numeric fields that contain sample data.

Any function that looks for "x" or "n", etc., can be substituted with a legal fieldname. If you have any doubts, experiment. These powerful functions can be brought to use in any number of ways and fall in two areas, logical operators and @functions (pronounced "at functions").

A number of sophisticated mathematical functions can be performed automatically within a database. These functions expect numeric datatype fields or numbers as arguments, with three exceptions. They are: @CHOOSE, @COUNT and @IF. These last three will accept character string input.

@ABS(x) **Absolute Value of x**

@ABS(3.44)	=	3.44
@ABS(-4.7)	=	4.7
@ABS(NUM)	=	Absolute Value of the field-name NUM

@ACOS(x) **Arc Cosine of x**

Where the angle in radians whose cosine is x. If x is not between -1 and +1, the value is ERROR. The value of the ACOS function is always between 0 and pi.

@ACOS(-1)	=	3.141592 (radians)
@ACOS(NUM)	=	Arc Cosine of the fieldname NUM

@ASIN(x) **Arc Sine of x**

The function yields the Arc Sine of x, the angle in radians whose sine is x. If the value of x is not between -1 and +1, the value is ERROR. The value of the function always falls between-pi/2 and +pi/2.

@ASIN(-1)	=	-1.570796 (radians)
@ASIN(NUM)	=	Arc Sine of the fieldname NUM

@ATAN(x) **Arc Tangent (2 quadrant) of x**

The value of Arc Tangent x, the angle in radians whose tangent is x. Value falls between -pi/2 and +pi/2.

@ATAN(-3)	=	-1.249045 (radians)
@ATAN(NUM)	=	Arc Tangent of the field-name NUM

@ATAN2(x,y) Arc Tangent (4 quadrant) of x,y

The value of Arc Tangent of y/x, the angle in radians whose tangent is y/x. The signs of y and x are considered separately producing values for all 4 quadrants, between -pi and pi. If x = y = 0, then the value is ERROR.

@ATAN2(3,2)	=	0.982793 (radians)
@ATAN2(NUM1,NUM2)	=	Arc Tangent the fieldnames (NUM1/NUM2)

@AVG Averages the values of all items within a list.

All items in a list will be averaged. All values will be totaled and divided by the number of items.

Fieldname	**Value**
NUM1	23.1
NUM2	.34
NUM3	100.06

@AVG(NUM1,NUM2,NUM3) = 41.16666

@CHOOSE(a,V-0,V-1,...Vn) **Select argument value**

Short table lookups can be performed within the @CHOOSE function. @CHOOSE selects and returns an argument based upon the first argument. The first argument, a is turned into an integer. If this integer is less than 0 or greater than n, the function yields ERROR. Otherwise, the value of the function is V-i.

@CHOOSE (3,11,6.8,1.17)	=	1.17
@CHOOSE (3,NUM2,NUM3,1.17)	=	1.17
@CHOOSE (3,JAN,FEB,MAR,1.17)	=	MAR

@COS(x) **Cosine**

The Cosine of x, where x is an angle in radians.

@COS(-3)	=	-0.989992
@COS(NUM)	=	Cosine of the fieldname NUM

@COUNT **Counts the number of items within a list.**

The @COUNT function returns the number of items in a range. Single value arguments are counted as one each.

Fieldname	**Value**
NUM1	23.1
NUM2	.34
NUM3	100.06

@COUNT(NUM1,NUM2)	=	2
@COUNT(NUM1,NUM2,NUM3)	=	3
@COUNT(NUM2)	=	1
@COUNT(JAN,FEB,MAR)	=	3

@DATE(YY,MM,DD) **Date expressed serially (1-1-1900 = 1)**

The @DATE function permits date arithmetic supporting leap years. The date 1-1-1900 has been assigned the number 1, 1-2-1900 = 2, etc. Counting serially for the next 100 years, including 25 leap years yields 12-31-99 = 36525. The @DATE function works only between 12-31-1899 = 0 and 12-31-2099 = 73049.

@DATE(48,11,8) = 17844

@DAY **Day number**

@DAY converts a serial date and extracts day of the month. (See @Date, above)

@DAY(17844) = 8

@ERR **The value ERROR**

The value of @ERR is ERROR.

@EXP(x) **Exponential notation**

e raised to the x power.

@EXP(1.02) = 2.773194
@EXP(NUM) = e raised to the power of the field-name NUM

@FALSE **The value 0 (False)**

The value of the function is 0.

@FV(pmt,int,n) **Future Value**

The future value of an annuity can be automatically calculated given: payment per period, interest rate per payment period and n (number of periods). The calculation is performed according to the formula:

$$FV = payment * \frac{(1+interest)^n - 1}{interest}$$

Fieldname	Label	Value
NUM1	Payment	6000
NUM2	Interest	.08
NUM3	Periods (n)	24

@FV(6000,.08,24) = 400588.5
@FV(NUM1,NUM2,NUM3) = 400588.5

@IF(a,vtrue,vfalse) **The value n if condition is True**

@IF tests a for TRUE (non-zero) or FALSE (zero). The value is vtrue or vfalse.

Fieldname	Value
NUM1	3
NUM2	2
NUM3	22
NUM4	72

@IF(NUM1 >NUM2,NUM3/NUM4,0)

When NUM1 = 3 = 3.142857 (vtrue)
When NUM1 = 1 = 0.0 (vfalse)

@INT(x) Integer part

@INT returns the integer portion of the value x.

@INT(3.14) = 3

@ISERR(x) The value -1 (True) if expression n = NA

The value is -1.0 (TRUE) if fieldname (x) = ERR, or 0.0 (FALSE) if fieldname (x) equals anything else.

@LN(x) Log base e

The natural logarithm of fieldname (x). If fieldname (x) is negative or zero, the value is ERR.

@LN(1.2) = 0.182321

@LOG Log base 10

Same as above, but returns the logarithm base ten.

@MAX Maximum value of all items in a list

@MAX returns the greatest value from a specified list. If no values are present, the result is ERR, blank fields in the formula are ignored.

Fieldname	Value
NUM1	19.04
NUM2	23.567
NUM3	.02
NUM4	24.0
NUM5	.987
NUM6	12.89

@MAX(NUM1,NUM2,NUM3,NUM4,NUM5,NUM6) = 24.0

@MIN Minimum value of all items in a list

@MIN returns the smallest value from a specified list. If no values are present, the result is ERR, blank fields in a formula are ignored.

Fieldname	Value
NUM1	19.04
NUM2	23.567
NUM3	.02
NUM4	24.0
NUM5	.987
NUM6	12.89

@MAX(NUM1,NUM2,NUM3,NUM4,NUM5,NUM6) = .02

@MOD a mod b

The modulus or remainder of a divided by b according to the calculation:

a - (b*@INT(a/b))

@MOD(NUM2,NUM1) = 0.0

@MONTH Month number

@MONTH converts a serial date and extracts the month. (See @Date, above)

@MONTH(17844) = 11
@MONTH(NUM1) = 11

@PI pi (3.141592653589794)

No argument accompanies @PI.

@PI = 3.141592653589794

@PMT(prin,int,n) Payment

The payment is calculated for an ordinary annuity if (prin)cipal, (int)erest rate and (n)umber of periods are known according to the following formula:

$$PMT = principal * \frac{interest}{1 - (1+interest)^{-n}}$$

Fieldname	Label	Value
NUM1	Principal	6000
NUM2	Interest	0.14
NUM3	Term (n)	12

@PMT(6000,.14,12) = 1060.015
@PMT(NUM1,NUM2,NUM3) = 1060.015

@PV(pmt,int,term) **Present Value**

The Present Value of an ordinary annuity is calculated when payment, interest and term are known according to the following formula:

$$PV = payment * \frac{1-(1+interest)^{-n}}{interest}$$

Fieldname	Label	Value
NUM1	Payment	600
NUM2	Interest	0.14
NUM3	Term (n)	12

@PV(600,.14,12) = 3396.175
@PV(NUM1,NUM2,NUM3) = 3396.175

@RAND **Random number (1-0)**

The @RAND function takes no argument. It returns a random number between 0.0 and 1.0.

@ROUND(x,ndigits) **Round a number**

The @ROUND function rounds fieldname (x) to the number of digits specified (ndigits). "ndigits" is converted to an integer, must be between -15 and +15. If zero, fieldname (x) is rounded to an integer.

@SIN(x) **Sine**

The Sine of fieldname (x) is returned where fieldname (x) is considered to be an angle in radians.

@SIN(.3) = 0.29552

@SQRT(x) Square root

The @SQRT function calculates the square root of fieldname (x) unless fieldname (x) is zero.

@STD Standard Deviation of all items in a list

@STD results in the standard deviation of the values in a list unless there are no items within the list, resulting in ERR. Blank fields are ignored.

@STD(NUM1,NUM2) = Standard deviation for specified list

@SUM(list) Totals the values of all items in a lists

The @SUM function results in the sum of all fields in a list.

Fieldname	Value
NUM1	13.09
NUM2	112.01
NUM3	2.09

@SUM(NUM1,NUM2,NUM3) = 127.19

@TAN(x) Tangent

The @TAN function calculates the tangent of fieldname (x) when fieldname (x) is interpreted as an angle in radians.

@TAN(1.2) = 2.572151

@TODAY **Today's date**

The @TODAY converts today's date to serial format for inclusion in date arithmetic calculations. (See @DATE).

@TRUE **The value -1 (True)**

@TRUE takes no argument. Its value is -1.0.

@VAR **Variance of all items in a list**

The @VAR function calculates the population variance of items in a specified list according to the following formula where n = @COUNT (list) and each x = a list element.

$$\frac{n \sum x^2 - (\sum x)^2}{n^2}$$

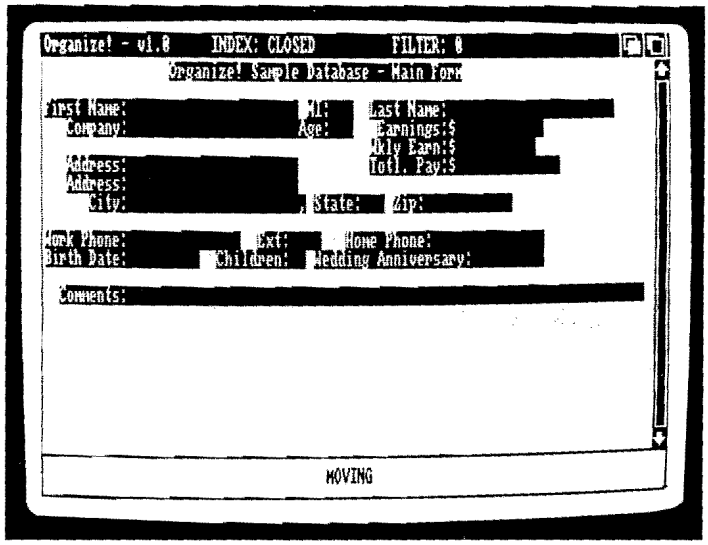
@YEAR(date) **Year number**

The @YEAR function extracts the calendar year from a specified serial date.

The last Action Add function is Text. We covered this briefly when we placed a comma between the CITY and STATE fieldnames.

Basically, Text allows you to place information on a Form that would improve its appearance, or more often, to provide useful information for those using the program.

Text labels can be up to 77 characters in length, and can be placed anywhere on the Form. Select Add Text now and enter the following: "**ORGANIZE!** Sample Database - Main Form" and press <RETURN>. The field will be attached to the mouse pointer. Place it up at the top of the Form and move everything down one line so your screen appears like this:



Now it's time to try the last Form command, Form Archive. Select that option now and watch the Archive requester appear.

In the "Selection:" input prompt, enter the name "MAIN". When that is done, select the Store gadget with the left mouse button. Enter an optional comment if you'd like.

When **ORGANIZE!** opens a database, it automatically loads "MAIN.frm", if one exists. Since we went through all the time and trouble to create this Form, it only seems right to boot up with it each time.

If you later wish to change the name of the Form, select it with the left mouse button, change the name and Store it under another. Then Delete the original Form. From there, it's just a small matter of creating one to your liking.

Changing an existing one is even easier. Once you Get it, make the changes and go back to the Archive requester. The Form name will be in the "Selection:" input prompt. Select the Store gadget and a "File exists, replace?" requester will appear. In effect, this replaces the old Form with the new one.

Now that we have our custom Form, let's learn how to search for specific records. The next chapter deals with database searches.

CHAPTER 5
SEARCHING FOR DATA

Searching for Data

Searching for specific records in a database is very important when it comes time to run reports or locate records. While you can scroll rather rapidly through the database, it would become quite time consuming to look through 30,000 records just to find those records with the LASTNAME of "Johnson".

Fortunately, **ORGANIZE!** has two special search functions. One scans through the database sequentially and the other searches through an open index.

Hold down the right mouse button and pull down the Search menu. The following options can be selected:

Search
Find Next
Find Prev
Browse
Define
- **Filter 1**
- **Filter 2**
- **Filter 3**
- **Filter 4**

Use
- **Filter 1**
- **Filter 2**
- **Filter 3**
- **Filter 4**

Define and Use are the only un-ghosted options. The Use pop-out menu is ghosted since no Search Filters have been defined.

A Search Filter is a character string used to compare individual records in the database against the search criteria entered in the Filter. Only those records that fall into the "pattern" of the Search Filter will be displayed when using Search Next and Search Prev commands.

ORGANIZE! allows up to 4 search filters to be defined. Only one filter at a time may be used. These searches are sequential searches through the database. What this means is that any searching performed will start with the current record number and continue forwards or backwards one record at a time.

The search filters work in conjunction with the Find Next and Find Prev commands. Now you'll define a search option. Select Define Filter 1 with the right mouse button. A requester will appear with "Enter search string". Search criteria can be as long as 255 characters. Enter the following:

FIRSTNAME>="M"#AND#FIRSTNAME<"N"

Upper or lower case does not matter for search strings. Any Text or Yes/No datatype search criteria must be surrounded in quotes. ONLY use the database fieldnames. DO NOT use the alternate field labels. Select the "OK" gadget after the string is entered. You have now defined your first search criteria.

With the right mouse button held down, select Form Mode Update. **ORGANIZE!** cannot search while in the Add mode. The nice thing about searching is that they can be performed with both active and inactive records. To search inactive records, select Form Mode Recall.

Once in the Update mode, select Search Use Filter 1 with the right mouse button. Remember, up to 4 Filters can be defined, but only one can be used at a time for searching. You'll notice that the other 3 Filters are still ghosted since they haven't been defined. After defining a new search Filter, it is automatically selected as the current Filter in Use. All 4 of the Use Filters are accessible through the Amiga keys as well as from the menus with the mouse.

If you are not at the beginning of the database, press an <ALT>-F to find the first record. Start searching by selecting Search Next from the Search menu, or pressing a Right Amiga N from the keyboard. Mary C. Johnson's record should now appear. Our search criteria specified all records that had a FIRSTNAME greater than or equal to "M", which would include Mary or any other FIRST-NAME that began with an "M". We also placed an #AND# condition that said don't display any FIRSTNAME's that were less than or equal to names beginning with an "N".

Due to our search criteria, only names beginning with "M" will be displayed. Select Find Next again. If you entered a sample record that had a FIRSTNAME that began with an "M", it will be displayed. If no match is found, a requester with a "Can't find match !!" message will appear. Other-wise, the next match will be shown on the screen. Searching backwards would be accomplished with the Find Prev or Right Amiga P key.

ORGANIZE! recognizes the following operators for use with Text, Numeric, Date and Yes/No fields:

=	equal
<	less than
<=	less than or equal
<>	not equal
>	greater than
>=	greater than or equal

Do not reverse the operators, =< instead of <=, or else the search will not work correctly.

Compound Conditionals (lower precedence):

#NOT#	logical not
#AND#	logical and
#OR#	logical or

Dates must be entered in the format of YYYYMMDD. For example:

DATE>=19580203

searches for any date that was greater than or equal to February 2, 1958.

DATE>=19580000

searches for any date that was greater than or equal to the year 1958.

If you wanted to search for a particular year, always pad the search string with zeros. The date search criteria **MUST** be 8 characters long.

When searching for data, the normal search record commands are still available. However, the only time you will get exact record matching is when doing a Find Next or Find Prev with the proper Filter selected.

The following are some examples of search filters and the response you should get from the database:

AGE=28#OR#AGE=54

would search for any record that had a value of 28 or 54 in the AGE field. All others would be ignored.

EARNINGS>=34000.00

searches for any record that had a value equal to or greater than 34000.00 in the EARNINGS field.

STATE="FL"#AND#ZIP=33405

searches for people living in the state of Florida that also had a ZIP code of 33405.

LASTNAME="J"#NOT#LASTNAME="Jones"

searches for any person whose LASTNAME begins with a "J" but will ignore any records whose LAST-NAME is Jones.

The second type of searching that can be done is a Browse. You'll notice that the option is still ghosted at this time. Browse works in conjunction with whatever index is open at that time. Because it searches through the index, Browse will be noticeably faster on larger databases. Unfortunately, it does not have the same flexibility as the Search Filters.

Select Index Archive and Get the ZIP.ndx, unless you have records that were entered when the index was not open. In that case, do not select the Index Archive; select Index Create. When it asks for the fieldname to index, enter ZIP and select the "OK" gadget. For this exercise, we want to make sure all the records in the database have been indexed.

Once that is done, go back to Index Archive and Get the ZIP.ndx. While holding down the right mouse button, notice that Search Browse is no longer ghosted. Highlight it with the mouse pointer and release the mouse button, it can also be accessed from the keyboard with the Right Amiga B key. A requester will appear with an input prompt with the message, "Enter ZIP to search for". Enter "33405" (without quotes) and select the "OK" gadget. George B. Jones' record will appear.

There is one important thing to remember when Browsing specific dates: to make our indexes dBASE III compatible, only dates from January 1, 1900 to December 31, 1999 will be accepted. The format for entering a date is YYYYMMDD. If you need to search for a date that falls out of this range, Search Filters will be required.

The Browse function differs quite a bit from the regular Search Filters. Browse will not support any of the logical operators, nor will it accept special search conditions. Character case **DOES** matter and there is no way to search next or previous records. If a partial Browse is entered, it will attempt to locate the closest match for that indexed value; searches of that kind are better performed with the use of Filters.

One hint when using Browse is to enter just the first letter of the fieldname for the record that you are looking for. If that fails, enter the second, and so forth, until you find the record, or are reasonably sure that it does not exist. Again, the best procedure to use in these cases is to define a search Filter.

Take some time now to experiment with both the Search Filters and Search Browse. Make yourself as familiar as possible with the many search criteria available.

Defining the proper searches will be invaluable when you start running specialized reports. The next chapter deals with the Report menu. Become familiar with the Search Filters before continuing.

CHAPTER 6
REPORT GENERATION

Report Generation

ORGANIZE! supports reports printed to printer, disk file and the screen.

The MailMerge datafile format makes **ORGANIZE!** completely compatible with our Scribble! wordprocessor MailMerge functions.

The same Forms you create for data entry can be used when printing reports.

Reports can be generated that will print records fitting Search Filter criteria, as well as printing the records in sorted ascending or descending order.

With the right mouse button held down, go to the title bar and pull down the Report menu. The following options will be displayed:

Report
Output to..
- **Printer**
- **Display**
- **File**

Format
- **Forms**
- **MailMerge**
- **Design**

Go
Print
- **Page-Length**
- **Top-Margin**
- **Bottom-Margin**
- **Setup**
- **Blanks**

Sort
- Ascending
- Descending
- None

Filter
- On
- Off

This menu deserves some explanation before we start printing our reports. The Report menu consolidates all you've learned about retrieving and searching for specific records. After this short discussion about the menu items, you should have no trouble printing your reports. However, examples will be given in order for you to get the most out of **ORGANIZE!**'s Report functions.

Notice that the "Output to.." option defaults to Printer. When File is selected, **ORGANIZE!** sends the report to a disk file that can later be edited with a wordprocessor. Under "Format", MailMerge is ghosted. Records can only be written to a MailMerge format when the output is going to a File. Display opens up a window and sends the output to your screen.

The "Forms" option under the Format menu item tells **ORGANIZE!** to print the data as it appears in the current Form. "MailMerge" is ghosted. The MailMerge format creates a file that is compatible and can be used with our Scribble! wordprocessor for the printing of form letters. Form letters are basically the same letter written to many people where specific items of data (such as names and addresses) are automatically entered into the letter. "Design" prints the structure of your Form. This includes formulas with the fieldname and corresponding label names.

The "Print" menu item displays a pop-out menu with the following options:

Page-Length is used to determine the maximum amount of lines allowed per page. The default is 66. If you change your preferences to 8 lines per inch, you should change your Page-Length to 88.

Top-Margin is the number of blank lines that will appear at the top of each sheet of paper before printing. The default is 6 lines per page.

Bottom-Margin is the number of blank lines that will appear at the bottom of each sheet of paper. The default is 6 lines per page.

Setup allows you to send a string directly to your printer, bypassing printer preferences. For instance, if you have an Epson or compatible printer, a setup string of "^O" or "%15" would place the printer in condensed mode. Percent signs are used in front of characters when you are using their decimal value instead of the ASCII. A decimal value of 15 translates to a ^O when converted to ASCII.

Blanks tells **ORGANIZE!** how many blank lines between each Form. The number of blank lines automatically defaults to "2". Entering "0" would cause the Forms to print one right after another. A "-1" instructs **ORGANIZE!** to send a form feed between each Form. That is, one record for each sheet of paper. Any other number entered would be the actual number of blank lines between Forms.

The "Sort" option is ghosted unless you have an open Index. The default Sort selection is None. Ascending would print records from the lowest value in the Index to the highest. Descending does the opposite, highest to lowest.

The "Filter" option is ghosted until a Search Filter is defined. The default selection is Off. If it is On, it will print records that match the search criteria for the current Filter in Use.

Let's print our first sample report. This report will use the sample Main Form and will print every record in the database. If you are not using the MAIN.frm that we created, select it now from Form Archive. Turn your printer on and select Report Go with the mouse pointer or by pressing the Right Amiga G from the keyboard.

Your report should look something like this:

ORGANIZE! Sample Database - Main Form

First Name: Joe MI: A. Last Name: Smith
Company: **ORGANIZE!** Age: 28 Earnings:$ 32000.00
Wkly Earn:$ 615.38
Address: 1234 Apple St. Totl. Pay:$ 615.38
Address:
City: Boca Raton , State: FL Zip: 33431

Work Phone: (305)555-1234 Ext: 0 Home Phone: (305)555-2345
Birth Date: 08/23/58 Children: N Wedding Anniversary:

Comments: Terrific salesman

ORGANIZE! Sample Database - Main Form

First Name: George MI: B. Last Name: Jones
Company: Scribble! Age: 54 Earnings:$ 54000.00
Wkly Earn:$ 1038.46
Address: P.O. Box 58 Totl. Pay:$ 1653.85
Address: Winston Dr.
City: West Palm Beach , State: FL Zip: 33405

Work Phone: (305)555-3456 Ext: 218 Home Phone: (305)555-4567
Birth Date: 02/11/32 Children: Wedding Anniversary: 06/18/00

Comments: Best distributor in WPB area.

ORGANIZE! Sample Database - Main Form

First Name: Mary MI: C. Last Name: Johnson
Company: Analyze! Age: 25 Earnings:$ 34500.00
Wkly Earn:$ 663.46
Address: 39932 Grand View Ln. Totl. Pay:$ 2317.31
Address:
City: Ft. Lauderdale , State: FL Zip: 33331

Work Phone: (305)555-5678 Ext: 0 Home Phone: (305)555-6789
Birth Date: 03/04/61 Children: Wedding Anniversary:

Comments: Leaves for vacation on 10/15/86 for two weeks.

A requester will appear in the middle of the screen with the record number that it is printing. This will not be the actual record number in the database, just the number of records it is printing. The mouse pointer will be snoozing. To abort a report, press the <ESC> key.

Now print them in ZIP code order. Go to Index Archive and Get the ZIP.ndx. If you are not absolutely sure that all the records in the sample database have been indexed, do not Get the index. Instead, select Index Create and enter "ZIP" as fieldname to index. After **ORGANIZE!** has finished creating the index, select Index Archive and Get the ZIP.ndx.

If all the records in your database are not indexed, those that aren't will be ignored when you select a Report Sort option. This would happen if you had indexed your database on the ZIP field and then had added some new records without opening that index. Those newly entered records would be ignored by **ORGANIZE!**, since it is looking in the currently open index for records.

As was mentioned in Chapter 3, unless you plan to use only ONE index for sorted reports, and that index is ALWAYS open when adding new records, it would be a good practice to re-index on any field that will be used for sorted reports. Otherwise, there is the chance that some records will not be included in your reports.

With the ZIP index open, Report Sort is no longer ghosted. The title bar will display the word "INDEX" along with the open index name. Select Sort Ascending with your mouse pointer. This will print all records sorted in ZIP code order, from the smallest value to the highest. This will be very important when you print mailing lists. Make sure that "Ascending" is checkmarked and select Report Go.

One more report to run before we start showing you some more hints. Select Search Define Filter 1. Enter the following string:

LASTNAME>="J"#AND#LASTNAME<="K"

Select Search Use Filter 1 so **ORGANIZE!** knows which search criteria to use when looking for records. Now select Report Filter On. It is un-ghosted since a search Filter has been defined. The word "FILTER" with the current Filter number in use will appear on the title bar.

Select Report Go. **ORGANIZE!** will print any records that have lastnames beginning with a "J". In addition, these records will be printed in ZIP code order. If you didn't want the records printed in ZIP code order, you would have selected Sort None.

To print a separate set of records, define another Search Filter and Use it. Then run the report again. See how flexible **ORGANIZE!** is?

Now, you'll print a report to the screen. Many times, while creating a Form for a particular Report, it will be desirable to print the report to the screen instead of wasting a lot of paper by sending the report to your printer.

The first thing to do is select Output to.. Display. Then select Report Go or press the Right Amiga G key. The records will start displaying on the screen. To pause the screen output, press the space bar. To resume, press the backspace key. Holding down the right mouse key will also serve the same purpose. To abort the report, press the <ESC> key.

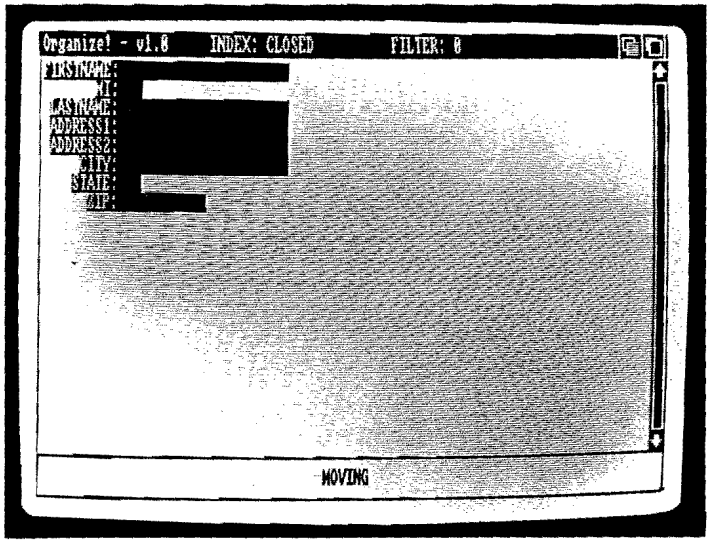
Go back to the Format menu. Notice that MailMerge is still ghosted. Organize! requires that MailMerge reports go to a file, since they are all but useless for anything but form letters or data export for import into other databases. Many types of database programs will read in MailMerge format files, allowing you to easily use **ORGANIZE!** with another application if the other application does not accept dBASE III compatible datafiles.

Ideally, you would write a MailMerge format file for use with our Scribble! wordprocessor. This allows the creation of form letters. If you wanted the same letter sent to many people, each "personalized", then this would be the perfect way to go. When entering a filename to output to, **ORGANIZE!** defaults to the currently logged disk drive. This generally will be the main directory of the **ORGANIZE!** disk. This is not where the database files are located and should make it much easier to copy or gain access to the datafile when using it for MailMerge purposes.

When creating a MailMerge file, remember that **ORGANIZE!** will write the fields to disk in order, from left to right, and top to bottom, as they appear on the Form.

We're going to show you a couple of quick hints for reports. One will be to create a MailMerge file and the other to print out a simple mailing list on one-across mailing labels.

Select Form Change. Then select Form List and answer "OK" to create default. Make your Form look like the following by deleting all non-essential fields:



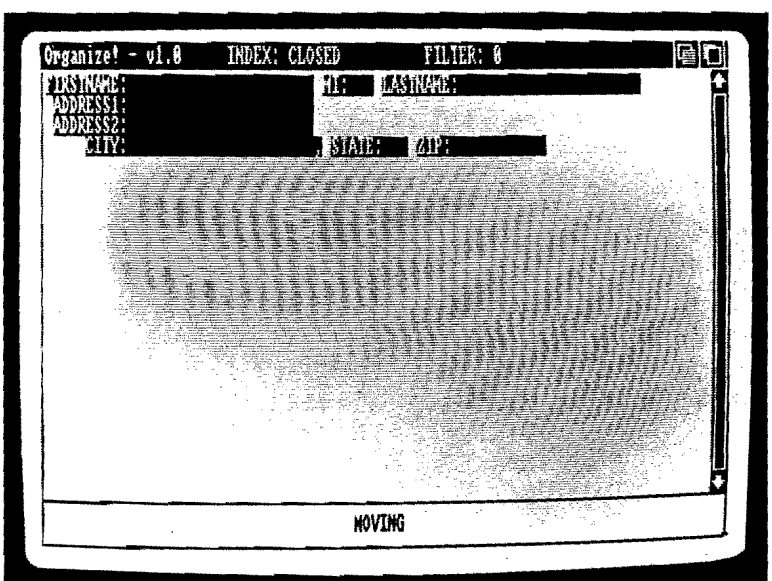
Note that only field information is ever written to a Mail-Merge file. Any additional text or formulas in the Form will be ignored. Only the information in the fields will be written to the file, nothing else.

This gives you a basic mailing list. At this point, select Format MailMerge and Output to.. File. Enter "MAIL-MERGE.DAT" as the filename. If you have an index open and the proper Sort option selected, this datafile will be written automatically in ZIP code or any other order that you would need. This saves an immense amount of time if doing the type of mailings where ZIP code order can save you money. Of course, you would still need a word-processor that had MailMerge functions. Do a Report Go to write the information to the datafile.

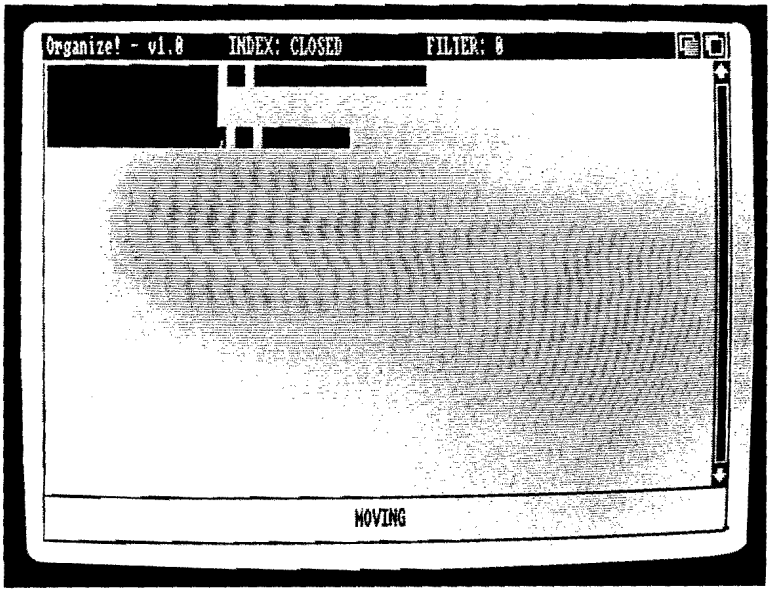
By now you may have gotten the idea that we think you should own Scribble!. This of course, is true. But we do not want you to think that you would have to have it to use **ORGANIZE!** effectively. It is just that you will probably find increased power and flexibility when writing reports to disk or creating MailMerge files. If you do own Scribble!, we've included a sample SCRIBBLE!.DOC that takes advantage of the MailMerge datafile that we just created.

It would probably be a good idea at this time to do a Form Archive and Store a format called MAILMERGE, for future use.

The next example will be a mailing list that can be printed directly from Organize!. Take the MAILMERGE Form we just created and arrange it like this:



Don't forget the Add Text option to insert a comma between the CITY and STATE fields. Once that is done, go to Add Change mode and make blank labels for each of the field-names. As you create blank labels, the individual fields will need to be Moved over to the left and aligned. When done, your Form should look like this:



This is a practical Form to use with mailing lists since no unnecessary information will be printed on the labels. Select Output to.. Printer and change your Top and Bottom Margins to 1 and change the Page-Length to 6. This will print a 1 line space at the top and bottom of each label. For "Blanks", select a "-1". If you need lists with more than four lines per label, it would probably be a good idea to set your printer preferences for 8 lines per inch and adjust your Margins and Page-Length accordingly.

This covers the basics along with some advanced examples of report generation with **ORGANIZE!**. The next chapter deals with the rest of the Database menu as well as the Project menu, a topic from which you will gain a great deal of power and flexibility through **ORGANIZE!**.

CHAPTER 7
ADVANCED DATABASE MENU INFORMATION

Advanced Database Menu Functions

For most of your database needs, the only functions of the Database menu you will use is Archive, Close and Create.

However, there may be instances when you will need to alter an existing database or copy just parts of one database for use with another. That is what the following menu items are for:

Change
Copy
    Design
    Selected

For this part of the menu, no examples will be given. This is more for reference than anything else.

The "Change" option allows you to alter an existing database. **WARNING!:** This is a very dangerous option. It is always a good idea to make backups of your database before exploring something like this.

When you alter a database, be very careful. Adding or deleting fields is generally no problem. **ORGANIZE!** keeps track of where specific data is to be written and will make room for new fields as needed without losing data that is already there. The danger comes when trying to make a Text field into a Numeric, or vice versa. If you change a field's datatype, the chances are that when the changes are Submitted, the data for that particular field will be lost. **ORGANIZE!** does not convert datatypes.

ORGANIZE! permits the changing of an existing field, so long as you are increasing a field width and not decreasing. If you decreased a Text field from a width of 20 down to 10, any records entered that went past 10 characters would be chopped off at that point. You could end up with half a field entry if the previous record had the entire field filled. Not to say you would lose everything or that it can't be done, but just be careful as to the circumstances under which you attempt such a change. Valuable information could be lost.

It may be useful to note that **ORGANIZE!** saves the default record size, no matter how much information is contained in the record. If the record size is 255 bytes, that's how much space each record will occupy, whether or not the record is filled or empty. Keep this in mind when creating your own database.

One last bit of information about Changing. Chances are 99% against you that your Forms will not be compatible with your changed database. In those instances, it will be necessary for you to create brand new Forms.

The next menu item is "Copy". Copy Design does just as it says. If you wanted to create an identical database, with no records entered, you would select this. Note that ONLY the database fieldname information would be copied. You would be prompted for the name of your new database. None of your Forms, Indexes or anything else would be copied. You would be starting with a brand new database. If it already exists, a requester with "Replace database?" will appear. If you select "OK", it will be written over.

Copy Selected goes one step further by copying the Design of the database along with any records matching the search criteria for the Filter in Use. Should you need all the records of a database copied, enter a Search Filter like:

FIRSTNAME>="A"#AND#FIRSTNAME<="Z"

You will be prompted for the name of the new database. If it already exists, a requester with "Replace database?" will appear. If you select "OK", it will be written over.

Project Menu

Projects are one of the most powerful and easiest to use tools that Organize! offers. They save:

The Database that is open
The Index that is open
The particular Form that was in use
All 4 Search Filters - if defined
Every selection under the Report menu
Screen colors

Since **ORGANIZE!** uses a custom screen, we have included a function that allows you to change the screen colors **ORGANIZE!** uses. It is accessed through **Project Colors**. If **ORGANIZE!** is not loaded through a Project, then the default Workbench colors will be used.

Select Project Colors at this time. This option can be called at almost any time when using **ORGANIZE!**. A requester that looks like a mini-preferences will appear. It will work identically to preferences for changing screen colors. Along the bottom of the requester appear the options: Use, Reset and Cancel.

When you make a change to the screen colors, select Use. **ORGANIZE!** will then use the colors selected. If you do not like the colors, you can select Reset or Cancel. The only difference between Reset and Cancel is that Reset will return the screen colors to what they were from the last time they were Used. Cancel aborts the requester without making any changes to the screen.

After changing a screen's colors, make sure you Store a Project with the rest of your defaults. To start **ORGANIZE!** with your color selection, run **ORGANIZE!** from a Project, or select a Project when **ORGANIZE!** is running.

There are only a couple of things that Projects do not keep track of. They will not:

Remember the Browse string
Keep track of which Filter is in Use
Save what mode the database was in

ORGANIZE! always defaults to the Update mode when first booted up, unless there are no records in the database. In which case, the default mode will be Add.

To save a Project, select everything above that you wished saved for a particular use.

Then select Project Archive. When the Archive requester appears, enter a unique name for your Project and select the Store gadget with the left mouse button.

Do this as many times for as many different circumstances as you will need. Don't hurry, it will no doubt take you quite a while to create all the different Forms and search criteria that you will be using on a regular basis.

A Project icon is created everytime you Store a new name. These Project icons can be found in the database drawer when you select it with the left mouse button by pressing it twice in succession. When the drawer window appears, so will the Project icons. To have **ORGANIZE!** load from a Project icon, just select the proper Project icon and press on it twice with the left mouse button. Everything will be loaded automatically.

Status Menu

Once a database is open, each Status menu option is pretty self-explanatory.

Status System displays:

Free memory (RAM) available to system
Amount of free disk space for disk files
The date and time

Status Database displays:

The name and path of the open database
Number of records in database
Size of each record
Number of fields for each record
Size of the disk file that the database occupies

ORGANIZE! Utilities

On your master disk are two utilities that can be used with your **ORGANIZE!** databases. These can only be run from CLI and are essentially stand-alone programs for the Form Mode Pack and Status Database functions within **ORGANIZE!**.

The first one is called dBinfo and when run it gives a listing of the database's fieldnames, the total number of records in the database and the number of active and inactive records.

The command string will be as follows:

dBinfo OrgData:NAMES

Where "OrgData" is the volume name of the disk containing the "NAMES" database.

The next one is called dBpack, and it works the same way as the Form Mode Pack in **ORGANIZE!**. It reports the record number that it is checking, the number of records removed, the number remaining and the amount of disk space that was recovered from Packing the database.

The command string will be as follows:

dBpack NAMES

Where "NAMES" is assumed to be on the current disk. You could also have entered either one of the following:

dBpack OrgData:NAMES

or

dBpack DF1:NAMES

Where "DF1" is assumed to be any diskette in your external drive (if you have one).

dBASE File Compatibility

ORGANIZE! had been found to be completely compatible with dBASE III files - with two exceptions.

One: Memo fields will be ignored by **ORGANIZE!**. At this time, **ORGANIZE!** does not support the Memo datatype. Any attempt to read or write to a Memo datatype field will be ignored.

Two: **ORGANIZE!** cannot read dBASE indexes. While the datafiles are, you must create brand new indexes through **ORGANIZE!** if you plan on doing any sorting with the dBASE datafiles.

Beyond this, no problems have been found when using dBASE file with Organize!. This offers you a flexibility unheard of in other Amiga database programs.

Miscellaneous Information

This section contains some useful odds and ends that may make working with Organize! a little easier.

ORGANIZE! can be loaded from CLI. If you have a separate data disk, Organize! can be commanded to not only log into that disk, but also load a particular Project. For example, entering the following at a CLI command prompt:

ORGANIZE! OrgData:NAMES.DB/ADDNAMES

Would load **ORGANIZE!**, tell it to log onto the data disk with the volume name of "OrgData", look in the NAMES.DB sub-directory and load the Project called "ADDNAMES".

When **ORGANIZE!** creates a database, it also creates a sub-directory on the data disk that contains the datafile as well as any Projects, Indexes and Forms that were created. This allows **ORGANIZE!** to completely segregate many databases residing on the same database without accidentally using the wrong Forms, etc.

For that reason, it is a very good idea not to enter any type of sub-directory path when creating a new database. Despite the fact that if the sub-directory doesn't already exist, **ORGANIZE!** will come back with a storing error, it will only serve to confuse you and limit your use of **ORGANIZE!** from Workbench. Also, you would not want to accidentally have two databases in the same sub-directory. That would cause you no end of troubles.

There are two ways in which you can make copies of your database. One is to do a complete diskcopy, which we have demonstrated when we copied the master disk. The other is to copy just the Workbench drawer which contains everything about the database (Projects, Indexes and Forms) that we need.

To do this you would need an initialized disk that had enough disk space on it for the database. To copy the entire database, it is a simple matter of selecting the proper disk icon that you wish to store a copy of your database to and press the left mouse button on the database drawer and drag it over to the data disks Workbench window. The entire database will be copied. Often, this is faster than doing a complete diskcopy. The choice of data backup is up to you.

To copy the database from CLI would be accomplished like this:

COPY ORGANIZE!:NAMES.DB ALL TO BAKDATA:

The entire sub-directory (drawer) for the NAMES.DB would be copied off the **ORGANIZE!** disk to the disk with the volume name of "BAKDATA".

Deleting a database can be done through Workbench with the DISCARD option from the Workbench menu, or from CLI by entering:

DELETE ORGANIZE!:NAMES.DB ALL

If this confuses you somewhat, we highly recommend that you purchase an AmigaDOS User's Guide from your local bookstore. There is a wealth of information to be found about the Amiga and CLI from one of these books.

Conclusion

This concludes the **ORGANIZE!** User's Manual. The following chapter is a reference section that also contains some useful information about **ORGANIZE!**'s file structure, should you wish to write your own programs to tap into the datafiles that **ORGANIZE!** creates.

We hope that you enjoy **ORGANIZE!** to its fullest capabilities. Should you have any questions or comments, please feel free to contact our Technical Support staff at (305) 391-5077 between the hours of 9 a.m. - 5 p.m. EST.

Any suggestions for changes in **ORGANIZE!** should be sent in written form to Micro-Systems Software, Inc. so they may be forwarded to Research and Development for consideration and possible inclusion in the next revision.

Your comments and suggestions are always welcome. Thank you for your interest in our software products.

Reference Section

This section contains a breakdown of each Menu option, with a brief summary of what the option does.

For an in-depth look of how to use these options, please refer to the User's Manual.

Project Menu

This menu contains options relating to the creation and use of Project Icons.

Project Archive

Brings up an Archive requester for Getting, Storing and the Deleting of Project icons.

Project Colors

Allows you to change the screen colors for **ORGANIZE!**. Colors can be saved in Projects along with the other information that Projects store.

Project Quit

Brings up a requester prompting you to exit **ORGANIZE!**. Will close any open database and associated index automatically.

Database Menu

This menu contains the options necessary for opening, closing, creating and copying databases.

Database Archive

Brings up an Archive requester for retrieving a database. This option will be ghosted when a database is currently open.

Database Close (Right Amiga C)

Displays a requester to confirm your desire to close an open database. Writes any records in the buffer to disk and closes the index, if one has been opened.

Database Create

Allows the creation of a new database. Nothing is saved until you have Submitted the database.

Database Change

Changes an existing database. Use this carefully. Some data may become lost when changing field datatypes, removing fields from the database or decreasing field widths.

Database Copy Design

Allows you to create a brand new database by taking the currently opened database design and copying it to a new name. No records or any associated Indexes or Forms are copied - the database will be empty. If the database exists, you will be prompted to replace it.

Database Copy Selected

Copies the design of the current database as well as any records that match the search criteria of the Filter in Use to a new database. If the database exists, you will be prompted to replace it. None of the Indexes or Forms are copied.

Database Copy All

Copies the current database design and all records, including any inactive records. If the database exists, you will be prompted to replace it. None of the Indexes or Forms are copied.

Index Menu

Indexes are used to allow the sorting and quick search of records. This menu contains the functions necessary for opening, closing, creating and the deleting of Indexes. Only one Index may be open at any one time.

Index Archive

Brings up a requester for Getting and Deleting indexes. Will be ghosted if an Index is open.

Index Close

This option is ghosted unless an Index is currently open. Closes the open Index and un-ghosts Index Archive.

Index Create

Creates an Index for any valid fieldname. Will not create an Index if it is the same as one currently open. Should be performed before any Reports that require fields to be sorted in a particular order, unless you know for sure that every record Added to the database was entered with that Index open.

Form Menu

This menu contains most of the functions necessary for maintaining your database.

Form Archive

Displays a requester for Getting, Storing and Deleting custom Forms for data entry and retrieval.

Form Change

Takes you to another screen where you are able to create your own custom data entry and retrieval screens.

Form Change Form Archive

Displays the same requester as Form Archive for Getting, Storing and Deleting custom Forms.

Form Change Form List

Creates a default listing of the database fieldnames. A requester will appear to confirm your choice. This erases whatever Form is currently displayed and allows you to start from scratch.

Form Change Form Resume

Aborts the Form Change mode and returns you to the main screen of **ORGANIZE!**.

Form Change Action Add Entry Area (Right Amiga E)

Allows you to Add a fieldname back into the Form that had been previously deleted. If the fieldname exists, a requester will display informing you that you cannot add that particular field because it exists.

Form Change Action Add Formula (Right Amiga F)

Creates a derived field that contains a formula used to perform mathematical operations on the database fields. A derived field may not access another derived field nor can the data in the field be saved as part of the database.

Form Change Action Add Text (Right Amiga T)

Allows the addition of text information to complement a Form. Can be used as supplemental labels when you need a larger label than the 10 characters currently allowed.

Form Change Action Change

Allows you to change the current definition of a fieldname. This includes creating an alternate label for an existing fieldname, or adjusting derived fields created by Action Add Formula.

Form Change Action Delete

This selection is used to delete fields from the Form as well as eliminate any unnecessary blank lines between fields.

Form Change Action Move

This is the default option when selecting Form Change. It allows you to move and align the fields anywhere within the 78 x 255 working area of the Form.

Form Mode Update (Right Amiga U)

Permits the editing, deleting and searching of active records. This will be the mode you will be in most of the time, unless you are Adding new records.

Form Mode Add (Right Amiga A)

This is the default mode **ORGANIZE!** uses when booting up. Allows you to add new records into the database. Use Right Amiga S to store the record.

Form Mode Recall

This mode displays inactive records. A Right Amiga R or Form Record Recall can be used to make the record active again. Inactive records take up valuable disk space and should be purged with the Pack command.

Form Mode Pack

Pack recovers lost disk space due to inactive records. Always make a backup of your data before performing this function. Once the database has been Packed, any inactive records are permanently deleted and cannot be recovered.

Form Record Erase (Right Amiga X)

Clears the current record from the screen. Does not delete it.

Form Record Undo (Right Amiga Q)

Undo's any changes made to the current record in the buffer. Until the record is saved, the changes made to it can be aborted by using this command.

Form Record Store (Right Amiga S)

Stores the current record displayed to disk.

Form Record Delete (Right Amiga D)

Makes the current record displayed inactive. Will not be actually deleted from the database until a Pack is performed.

Form Record Recall (Right Amiga R)

Recalls an inactive record displayed through Form Mode Recall.

Form Record Print (Right Amiga H)

Prints the displayed record with the current Form.

Form Field Erase (<CTRL>-X)

Erases the field from the screen but does nothing to the record until it is stored again.

Form Field Undo (<CTRL>-Q)

Undo's any changes made to the last written field. Changes won't be saved until the record is stored again.

Search Menu

This menu contains the options necessary for finding particular records in a database. Used for both normal searches and reports.

Search Find Next (Right Amiga N)

Finds the next occurrence of a record matching the search criteria for the current Search Filter in Use. If no other matches are found, a requester will display.

Search Find Prev (Right Amiga P)

Find the previous occurrence of a record matching the search criteria for the current Search Filter in Use. If no other matches are found, a requester will display.

Search Browse (Right Amiga B)

This option is ghosted unless an Index is open. Searches the current Index for exact matches. Case does matter.

Search Define Filter 1 - 4

Allows the definition of up to 4 Search criteria. Only one Filter may be Used at a time. Can be used for both regular database searches and report generation.

Search Use Filter 1 - 4 (Right Amiga 1 - 4)

Used to select which defined Filter will be used. 1 - 4 are allowed. If a Filter has not been defined, the corresponding Use Filter will be ghosted.

Report Menu

This menu contains the functions necessary to generate reports to the screen, printer or disk file.

Report Output to.. Printer

This is the default selection. Sends all output through your printer.

Report Output to.. Display

Sends the report output to your screen.

Report Output to.. File

Sends a report to a disk file where it can be edited for printing later. Must be selected when creating a MailMerge file.

Report Format Forms

Prints the Report using the current Form selected.

Report Format MailMerge

This option is ghosted unless the Report output goes to a File. Prints a disk file for use with Scribble!'s MailMerge function or data import for another database that isn't dBASE III file-compatible.

Report Format Design

Prints the layout of the Form, along with any formulas, plus a listing of fieldnames and corresponding labels.

Report Go (Right Amiga G)

Starts the Report to whatever output you have selected.

Report Print Page-Length

Sets the number of lines per page. Default is 66 lines.

Report Print Top-Margin

Sets the number of blank lines that will print on the top of the page. The default is 6 lines.

Report Print Bottom-Margin

Sets the number of blank lines printed at the bottom of the page. The default is 6 lines.

Report Print Setup

Sends a setup string to your printer, bypassing preferences. A "^O" or "%15" would place an Epson compatible printer in the condensed mode. The percent sign is used when you are entering the decimal value of a character. The "^O" is the ASCII equivalent of decimal 15.

Report Print Blanks

Selects the number of blank lines between Forms. A "-1" outputs a form feed between Forms, and a "0" leaves no blank lines. Two blank lines between Forms is the default.

Report Sort Ascending

This option is ghosted unless an Index is open. When selected, the records are printed from the lowest value in the Index to the highest.

Report Sort Descending

This option is ghosted unless an Index is open. When selected, the records are printed from the highest value in the Index to the lowest.

Report Sort None

This option is ghosted unless an Index is open. This is the default selection for the Sort function. The records for the Report will not be printed in Index order.

Report Filter On

This option will be ghosted unless a Search Filter has been defined and is in Use. When ON, only records matching the search criteria of the Filter in Use will be printed.

Report Filter Off

This option will be ghosted unless a Search Filter has been defined and is in Use. OFF is the default selection for this function. Records will not be checked against search criteria before being printed.

Status System

Displays the amount of free memory available to the system, and the amount of free disk space for files and the date and time.

Status Database (Right Amiga /)

If a database is open, the name and path of the database will be displayed. The number of the records in the database and the size of each record will also appear. The last piece of information is the size of the disk file that the database occupies.

Technical Specifications

Version	1.0
Maximum number of files open at a time	1
Maximum number of records	4.2 billion
Maximum number of fields	128
Maximum characters per Text field	254
Maximum number of numbers per Numeric field	16
Maximum number of fields for sorting	128
Maximum number of open indexes	1
Maximum number of search filters	4
Maximum characters for search criteria	254
Maximum characters for formulas	80

Form and Report Design

Number of views, forms or layouts per file	Infinite
Set custom paper sizes for labels and forms	Preferences
Number of font styles	1

Data Base Operations

Fast(indexed) search for data in fields	Yes
Logical search operators	And,Or,Not

Calculations

Number of math operators	5
Number of math functions	32
Number of date functions	5
Number of financial functions	3
Number of comparison and logical operators	8
Conditional logic in calculations	Yes
Date arithmetic	Yes
Summary calculations	Yes

Output formats Report to Printer, File and Screen

ORGANIZE! integrates with dBASE file-compatible products and those that import ASCII delimited Mail-Merge files.

ORGANIZE! .dbf file format

Note that all addresses are relative to the start of the file.

The first part of a .dbf file is used to describe the structure of the data within it. All of the "fields" that are a part of this data description are 32 bytes long. The actual data which is stored in this .dbf file follows the description.

The first "field" of the description is a special case. It is formatted as follows:

The first byte of the file determines whether there are currently any memo fields in this database. If there are any of these type fields this byte will be 0x83, otherwise it will be 0x03. Note: **ORGANIZE!** currently ignores memo fields.

The following three bytes describe the date that the database was last changed:

First byte	Year
Second byte	Month
Third byte	Day

The next longword, or four bytes, contains the number of records in this datafile. It is in a format known as LSB-MSB (Least Significant Bit-Most Significant Bit). This means that the bits are in the reverse order.

The next word, or two bytes, is the file address of the first record. This means that byte xxxx is where the actual data begins. It is also in the LSB-MSB format.

The next word is the size of the records in this datafile plus one. The size is in bytes. It is in the LSB-MSB format. Note that there is an extra byte at the beginning of each record. This byte is used to describe whether or not this record is ACTIVE or INACTIVE. A record becomes INACTIVE when it is deleted with **ORGANIZE!**. It is not actually removed from the datafile until a Pack is performed.

The next 20 bytes are unused and are assumed to be for future expansion.

Now that we've covered the first 32 bytes, the rest is easy! The information which follows the first 32 bytes describes the structure of the data when it was stored in the file. For each field that we added when we created this database there are 32 bytes used to describe its attributes. The structure of this data is as follows:

The first 11 bytes are the name that this field currently has.

The next byte is the field type. It will be one of the following characters; C, N, D, L, M. These correspond to Text, Numeric, Date, Yes/No and Memo.

The next longword is padding and should be zero.

The next byte is the width of this field. This can be a number between 1 and 254.

The next 15 bytes are padding and should be zero.

This description is repeated for each of the fields of the data.

After all of the fields have been described, there are only two more bytes before the actual data begins. These bytes serve to mark the end of the .dbf file header. They have the values 0x0D and 0x00.

Now comes the actual data. To find a certain record in the datafile there is a simple formula: First record address + (Record number * Record size). The size of a stored record is actually one byte larger than the amount of data that was placed in it. This byte, remember describes the status of the record.

ORGANIZE! internal buffer specs

ORGANIZE! maintains a buffer in memory for storing current records. The size of this buffer is determined by a very simple chart as follows:

Record Size Range	Buffer Size
less than 65 bytes	512 bytes
between 65 and 128 bytes	1024 bytes
between 129 and 256 bytes	2048 bytes
between 257 and 512 bytes	4096 bytes
between 513 and 1024 bytes	8192 bytes
greater than 1024 bytes	16834 bytes

Miscellaneous Menu Commands:

Function	Keyboard
Database Close	Right Amiga C
Report Go	Right Amiga G

Form Menu Commands:

Function	Keyboard
Add Entry Area	Right Amiga E
Add Formula	Right Amiga F
Add Text	Right Amiga T
Mode Update	Right Amiga U
Mode Add	Right Amiga A
Record Erase	Right Amiga X
Record Undo	Right Amiga Q
Record Store	Right Amiga S
Record Delete	Right Amiga D
Record Recall	Right Amiga R
Record Print	Right Amiga H
Field Erase	<CTRL>-X
Field Undo	<CTRL>-Q

Search Menu Commands:

Function	Keyboard
Find Next	Right Amiga N
Find Prev	Right Amiga P
Browse	Right Amiga B
Search Use Filter 1 - 4	Right Amiga 1 - 4
First record	<ALT>-F
Last record	<ALT>-L
Next record	<ALT>-N
Previous record	<ALT>-P
Clear Accumulator	<ALT>-O

Field Commands:

Function	Keyboard
Move up a field	Up arrow
Move down a field	Down arrow
Move down a field	<RETURN>
Top of form	SHIFT Up arrow
Bottom of form	SHIFT Down arrow

ORGANIZE! Appendix A

This addendum describes additions to Organize! not included in the manual.

ORGANIZE! may not work correctly on early beta versions of KickStart and Workbench 1.2. ORGANIZE! has been tested successfully with KickStart 1.2 v33.166 and later.

Three new ORGANIZE! utilities have been included on your master disk. They are accessed through CLI and are called:

dBimport
dBmerge
dBindex

dBimport

Takes an ASCII MailMerge-compatible file and imports it into an ORGANIZE! compatible database.

An import file must have fields separated by commas, and fields with commas must be surrounded in quotes. For example, a database with the following fields:

NAME
ADDRESS

would have to have the import file formatted as:

Joe Blow,1234 Any Street
"Joe Blow, Jr.",1234 Any Street

Notice that in the second "record", Joe Blow, Jr. is surrounded in quotes. This prevents "Jr." to be mistaken as

the ADDRESS field. Each "record" must be terminated with a LF (linefeed) or a CR/LF (carriage return/linefeed). Spaces between fields are ignored.

The "fields" must be entered in the same order as the fieldnames in the database when it was defined. dBimport does not care what Forms are loaded, it looks to the database definition when importing data.

The procedure for importing is as follows. From CLI, type:

dBimport CHECKBOOK DATA:NEWCHECKS

This command opens the CHECKBOOK database, which is assumed to be on the currently logged disk, opens the ASCII import file called NEWCHECKS from a disk with the volume name of DATA and adds the records to the CHECKBOOK database. Any errors found will be sent to the screen. A short error statement will display along with the record number, as found in the database, allowing the error to be fixed from within ORGANIZE! at a later time.

dBimport ORGANIZE!:CHECKBOOK DATA:NEWCHECKS /S

This command is similar to above. The CHECKBOOK database on the disk with the volume name of ORGANIZE! will be opened and the import file called NEWCHECKS will be opened from the DATA disk.

The "/S" option is a verify switch. No records are actually written to the database. Instead, each record from the import file will be compared with the CHECKBOOK database for field width/type compatibility.

Any errors found will be reported to the screen. The record numbers displayed will start with the highest record number in the opened database. If there were 200 records in the CHECKBOOK database and record number 234 reported as having too long of a field width, this indicates that record number 34 in the NEWCHECKS import file was inaccurate. This allows changes to be made to the import file BEFORE writing them to the database. If no errors are reported, re-enter the command line without the "/S" verify switch to write the records into the database.

dBimport >ERRORS ORGANIZE!:CHECKBOOK DATA:NEWCHECKS /S

This command functions as above, only any errors are reported to a disk file called ERRORS.

Data can be imported from any number of sources. For instance, you could print an Analyze! spreadsheet to a disk file and convert the printout with our Scribble! word-processor.

Similar things have been done with our BBS-PC! caller logs and Dow Jones stock quotes captured with our Online! telecommunications software. In each case, you will need to perform search and replace functions to convert the text to make it dBimport compatible.

Another alternative would be to write a program that would convert the text for you. We are not advising you to do this, nor can we advise you on how to take your own datafiles and make them dBimport compatible. We have simply made available a powerful import utility that can be used to enter records into your ORGANIZE! databases.

In addition, many IBM database programs will export Mail-Merge compatible files, as does ORGANIZE!. With our dBimport utility, you can easily import records from another database/computer for use with ORGANIZE!.

dBmerge

This powerful utility allows you to merge one ORGANIZE! database with another. Both database must be identical in their database definitions. In other words, the databases must be identical to one another as far as fieldnames, data-types and fieldname order is concerned. If they are not, the merge will fail.

This differs from dBimport in that ASCII files are not read - the entire database is copied into another.

The procedure for merging a database is:

dBmerge Organize!:CHECKBOOK
DATA:CHECKBOOK

The CHECKBOOK database on the disk with the volume name of Organize! will read in the CHECKBOOK database from the disk with the volume name of DATA. Any duplicate records will appear twice. No attempt is made to remove or check for duplicate records.

dBmerge Organize!:NAMES DATA:NAMES2

This command line takes the NAMES2 database from the disk with the volume name of DATA and merges it with the NAMES database on the disk with the volume name Organize!. Both databases are identical in structure, despite the name differences and is perfectly acceptable.

dBindex

This last utility allows you to index fieldnames without having to load ORGANIZE!. If running many reports with several types of sorted indexes, this utility run in conjunction with a batch file will allow you to automate what could become a time-consuming process.

The procedure for running dBindex is:

dBindex CHECKBOOK CHECKNO

which would look in the CHECKBOOK database on the currently logged disk and index on the fieldname CHECKNO.

dBindex Organize!:CHECKBOOK CHECKNO

If you specify a volume name for a database, DO NOT place a drive/path name in front of the fieldname. Otherwise, an error will occur since that particular fieldname does not exist in the database.

INDEX

@
@functions, 61

A
Absolute Value, 62
Accumulator, 58
Action Mode
  Move, 47
ADD, 20, 55
  Example, 23
  Requester, 22
Add Text, 50
Add Formula Requester, 57
Adding New Record
  Keyboard Commands, 29
  Status Line, 30
Addition, 60
ALT Commands, 122
Amiga
  Command Keys, 38
  Keyboard Commands, 29
Archive
  Requester, 15
Argument Function, 64
Averages, 63

B
Browse, 80

C
CHANGE, 21
  Label, 52
Change Existing Database, 95
Changing A Field, 96
Close Database, 34
Comments Field, 53
Conclusion, 103
Copy
  Database, 102
  Design, 96
  Making a Working Copy, 7
Cosine, 62, 64
Count Function, 64
Creating Your Database, 18
CTRL Keys, 121
Customizing Forms, 44

D
Data
  Entry, 27
  Indexing, 32
  Retrieving, 37
  Searching for, 75
  Type, 19
Database
  Advanced Functions, 95
  Change, 95
  Close, 34
  Copy, 102
  Create, 18
  Field, 18
  Load, 27
  Menu, 95
  Sample, 25
Date Function, 65, 78
Day Function, 65

dBase III Files, 101
dBinfo, 100
dBpack, 100
DELETE, 20
  Fields, 49
  Record, 42
Derived Fields, 58
  Accumulator, 58
Design Copy, 96
Division, 60
Duplicating ORGANIZE!
  One Drive, 7
  Two Drives, 9

E
Entering Data, 27
ERASE, 20
Error Function, 65
Exponential Calculation, 60
Exponential Notation, 65

F
False Function, 65
Field, 18
  Change, 51
  Labels, 52
  Name, 19
  Type, 19
  Width, 19
Filters
  Search, 76

Forms
  Customizing, 44
  Menu, 37
Formula
  Add, 57
Functions
  Advanced, 95
  Advanced Database Menu, 95
  Special Formula, 61
Future Value, 65

I
Icon
  Project, 99
IF Function, 66
Index Archive, 80
Indexing
  Data, 32
  Menu, 32
Information
  Miscellaneous, 101
Integer Function, 67
Introduction, 1
ISERR Function, 67

K
Keyboard Commands, 29, 121
  Update Mode, 38

L
LN Function, 67
Load Database, 27
Log Base 10, 67
Log Base e, 67
Logical Operators, 60, 78

M
Mailing List
  Form, 93, 94
MailMerge, 91
  Form, 92
Main Screen, 13
Making a Working Copy, 7
Mathematical Operators, 59
MAX Function, 67
Menu
  Advanced Database Functions, 95
  Database, 95
  Forms, 37
  Indexing, 32
  Main, 13
  Project, 97
  Report, 83
  Search, 75
  Status, 99
MIN Function, 68
Miscellaneous Information, 101
MOD Function, 68
Mode
  Action, 47
  Recall, 42
Modulus Function, 68
MONTH Function, 69
Move
  Mode, 48
Multiplication, 60

O
Operators
  Logical, 60, 78
  Mathematical, 59
Output, 84

P
Pack, 43
Payment Function, 69
PI Function, 69
Power Failure, 31
Present Value, 70
Print
  Menu, 85
Project
  Colors, 97
  Icon, 99
  Menu, 97
  Save, 98
  Store, 98

R
Random Number, 70
Recall Mode, 42
Record
  Delete, 42
  Size, 20
Reference Section, 105
Report
  Abort <ESC>, 88
  Generation, 83
  Menu, 83
Requester, 3
  Add, 22
  Add Entry, 55
  Add Formula, 57
  Archive, 15

Miscellaneous, 15
Retrieving Data, 37
Right Amiga Keys, 121
Round Function, 70

S
Sample
Database, 25
Save a Project, 98
Screen
Add A Field, 21
Screen Colors, 97
SCRIBBLE!, 92
Search, 89
Browse, 80
Examples, 79
Filters, 76
Menu, 75
Searching for Data, 75
Setup, 85
Sine, 70
Special Formula Functions(@functions), 61
Square Root, 71
Standard Deviation, 71
Starting The Program, 11
Status
System, 14
Status Line
Adding New Record, 30
Status Menu, 99
Store a Project, 98
Store a Record
Right Amiga S, 30
SUBMIT, 20
Subtraction, 60
SUM Function, 71

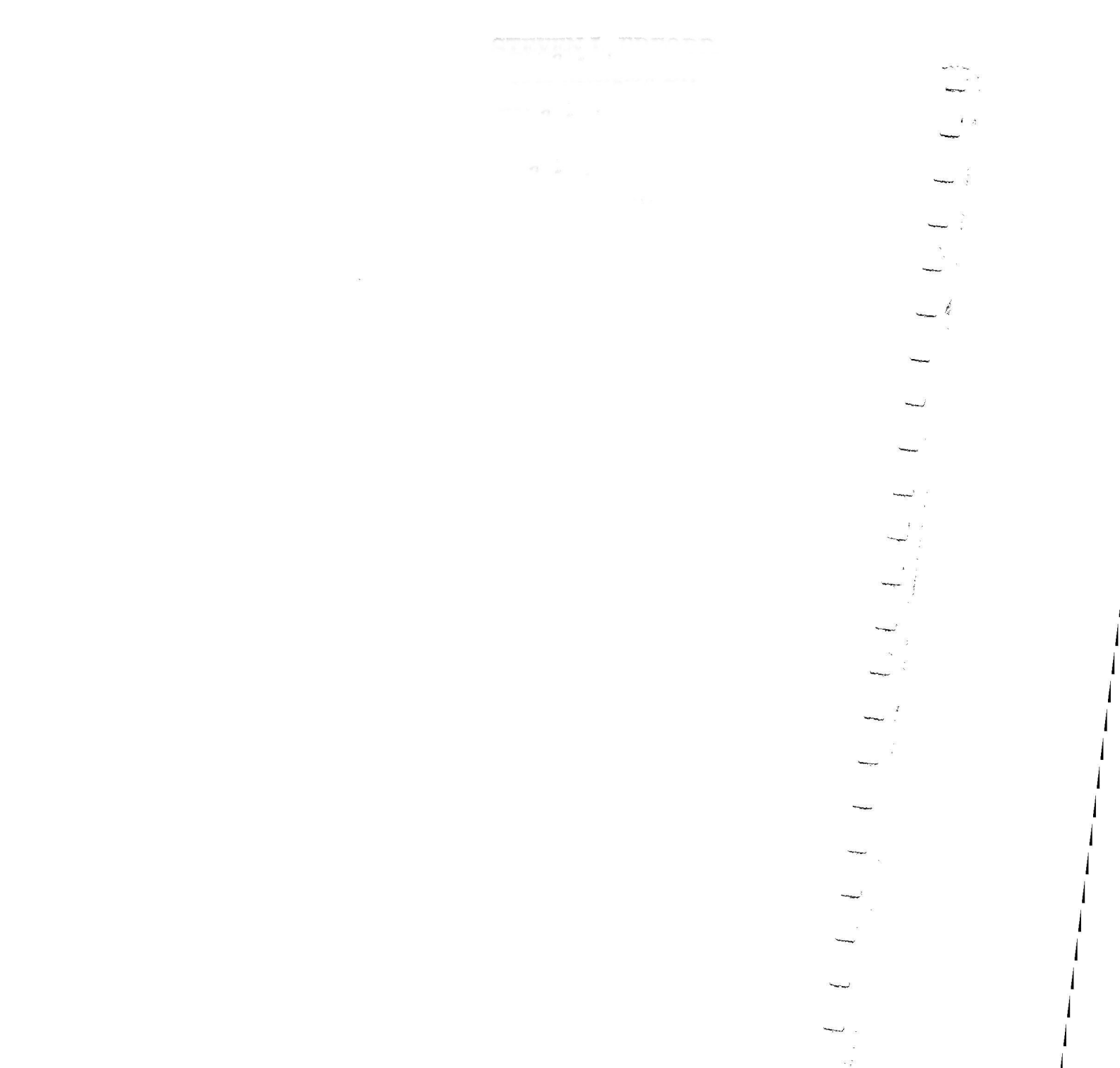
T
Tangent, 63, 71
Technical Support, 103
Terms Used, 3
Text
  Add, 50
  Function, 72
TODAY Function, 72
TRUE Function, 72

U
Utilities, 99

V
Variance Function, 72

W
Width
  Field, 19

Y
Year Function, 72



Thank you for your support and concern of our software products.

I have gained much experience with microcomputer software design by acting as a consultant and custom programmer for several companies, including Tandy Corporation, Timex Computer Corporation, I.B.M., Epson America, Inc., and Panasonic Computers.

As founder of Micro-Systems Software, Inc., and the primary author of all our programs, it is now my intent to create practical and quality software for you, by devoting my full efforts to the MSS Research and Development Division.

Enjoy your Amiga!,

Steven J. Pagliarulo